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The Family Planning in the Philippines

FAMILY PLANNING IN THE PHILIPPINES

edited by

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INTRODUCTION

The collection of articles presented in this book will give the readers the viewpoints of local authorities and leaders from different sectors of our society who are most qualified to give analytical evaluation of the present situation in this country with respect to its population growth and control. There has been so much request for this kind of perspective from the people, especially the intellectual groups, I had spoken to in the many speaking engagements that I had in different areas of the country. This is due to the fact that the subject matter is so important and very new in this country that more and more informative knowledge should unquestionably be made available to them.

There are these persistent questions: Is there really a population problem in the Philippines? Why is there a need of controlling an accelerated population growth? What is family planning or fertility control and what are its methods acceptable to the people? I hope the articles in this book will supply the answers to these questions. True there are articles that appeared in certain publications which showed negativistic thoughts and opinions which are not based on accurate facts and studies but merely based on a tourist way of making observation and of arriving at a conclusion. The most common and repeated contention is that when one travels in this country he can readily observe that we have many vacant lands and forested areas, and that Tondo is not the Philippines. (Tondo is a very densely populated slum district of Manila.)

Extensive studies have already been made to show that three years from today these remaining uninhabited lands will be just enough areas to develop as resources of food and other necessities needed to sustain the life of our growing population. They are still the remaining bounties of nature not to be abused and destroyed by filling them with people. Similarly, we do not fill all available spaces in a house with people--the sala, dining room, kitchen and even the big cabinets--and the open spaces around the house. Tondo is not the Philippines, but there are thou-

sands of rapidly growing Tondos all over the Philippines. In the studies made by Jupenlatz, the barong-barongs and squatters are increasing at the rate of 15 percent per year in all cities and towns of this country. Eight years from now, these will increase by 30 percent of the population of each area.

Undoubtedly there is a population problem in the Philippines. Today's population of 32.3 million in a land area of 115,700 square miles "is already four times the world average and above that of Europe, Asia, and even Southeast Asia as a whole." Comparing our population density with those of India and mainland China, the two most densely populated countries, will give the Philippines 270 people per square mile of land space which is surprisingly more than China's 212 but less than India's 338. The population of China is 750 million in a land area of 3,768,127 square miles and India is 450 million in 1,259,797 square miles.

Is there a need for our people to practice fertility control or what is commonly called birth control? Since fertility control through family planning on a nationwide level is something new in this country which is 86 percent predominantly Catholic, the true issue is often much clouded by socio-cultural and religious factors. There had been criticisms levied upon the family planning movement by the conservative sectarian groups which are well intentioned, but there seem to be no valid reason to change the trend of freedom of conscience and judgment for what is best for each and every family in this country. The Family Planning Association had already gone far and wide in the dissemination of informative knowledge and service to the people who are in need of family planning. The demand for the best medical methods which comes from the poor masses that comprise two-thirds of the entire population has tremendously increased in the many clinics already established in different areas of the country. It is a very strong indication that the poor people who are breeders of large impoverished families have already reached the limit of their sufferings. Especially in the rural and slum areas their main concern in life is just how to survive. They have to be guided by their consciences. There is so much truth then, in the recently made statement of Rev. Father

Gregory Baum of the Catholic University of Toronto, "It is quite clear that in the difficult question of whether there is a morally significant difference between natural (rhythm) and artificial means of avoiding conception, there is real doubt in the Catholic Church. Because there is no Catholic consensus on contraception, the Catholics must follow his conscience." (Commonweal Magazine) This means that a conscientious Catholic can use contraceptives without sinning. And to quote also Catholic Bishop de Smedt, "...he can fulfill the will of God only as the divine law is perceived through the dictate of conscience.... From the nature of things, in forming his judgment, whereby man tries freely to conform to the absolute demands of God's rights, neither any other man nor any human institution can take the place of the free judgment of man's conscience. Therefore, the man who sincerely obeys his conscience intends to obey God himself, although at times confusedly and unknowingly, and is to be considered worthy of esteem.... The greatest injury is to prevent a man from worshipping God and obeying God according to the dictates of his conscience."

In the learned countries of the world, family planning service is already an integral part of medical service under public health and preventive medicine, and it becomes also the responsibility of every practising physician. In a medical service program, like the family planning, which involves the people as a whole, the thoughts or principle expressed by Father Joseph Hassett, S.J., professor of philosophy at Fordham University, should be the rule to guide us, "Civil law is made not to uphold religious convictions of a particular group, but to promote the common good of all citizens."

Because all our attentions are focussed to the burning issue of population trends not only in this country but in the whole world, we seem to forget the very basic purpose or objectives of family planning irrespective whether we have population problem or not. Without the slightest thought that it will play today an important role in the control of the world's exploding population, modern family planning was introduced as a medical-social program about fifty years ago, with the sole purpose of promoting the well-

being of every human being through planned parenthood or responsible parenthood. Every human being is entitled to healthy life, liberty and pursuit of happiness, and it is a God-given right of every newborn child to parental love and care, to human dignity and healthful living. These can all be offered easily by the parents when the number of their children is adjusted to the financial capability of the family.

Family planning is a basic human right; the government as well as the medical men have responsibility to make available to each individual the opportunity to limit the size of his family through the best medical methods of birth spacing. The health and proper upbringing of the children depend upon the health of the mothers and the number of children the families can afford to have. A healthy and happy family is the supreme goal of every nation.

GREGORIO G. LIM, M. D.
Family Planning Association of the Philippines
Manila, April 26, 1966

THE POPULATION OF THE PHILIPPINES

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The Philippines, with most other Asian and Latin American countries, is experiencing an unprecedented growth in numbers. With over 32 million people, it is now one of the fastest growing nations in the world.

The Philippines' current rate of population growth, 3.2 percent a year, implies a doubling of the population in less than 23 years. If continued for a century, this rate would increase the country's population by more than twentyfold, from 32 million to about 750 million.

Rapid population growth is a relatively new phenomenon in the Philippines. Most of the country's history has been characterized by slight increases over long periods of time punctuated by periods of sharp decline.

An estimated half a million persons lived in the Philippines in 1521 when Ferdinand Magellan landed in the island of Homonhon. These early inhabitants were Malays who settled along the coast and in the fertile river valleys. Trade was carried on with Chinese and Bornean vessels which plied the sea routes between China in the northwest and the Celebes to the south.

With the arrival of the Spaniards, the Filipinos were placed under the obligation of providing the government with their labor for public works projects, for defense against invasions and for the frequent military expeditions to neighboring islands. The islands were also ravaged by severe epidemics of cholera, smallpox and influenza. Between 1591, when the earliest known report of the population was made to King Philip II of Spain to the end of the 18th Century, the population had apparently grown very gradually from about 664,000 to 1,600,000 people.

Till then war, disease and violence had held population increase in check. The population did not reach 5 million till almost a century later. But during the period of post-

World War II development (1948-1960), the population increased over 40 percent, from 19.2 million to 27 million.

Growth in the Present Century

In 1903, the Philippines was a land of 7.6 million people. During the next fifteen years, the population grew by 2.7 million, reaching a total of 10.3 million. Between 1918 and 1939, 5.7 million were added, bringing the total to 16 million. Then with the destruction wrought by war and internal strife, population growth was retarded. By 1948 the enumerated population was only 3.2 million more than the number found in 1939. Between 1948 and 1960 the increment was 7.9 million--more than twice that of the preceding 9 years. The total reached 27.1 million in 1960. From 1903 to 1939 the average annual population increment was 234,000; this average rose to 690,000 between 1948 and 1960. During the 1950's the total population of the Philippines expanded by 6.5 million, a growth of 32 percent.

Although the land area of the archipelago measures only 115,000 square miles, its population ranks twentieth in the world. In 1965, the Philippine population, estimated at 32.3 million, was nearly twice that of Canada which has more than 33 times as much land area.

The growth of population is the sum of the natural increase (births minus deaths) and net migration. Since migration, in or out, has been relatively inconsequential during the 20th Century, natural increase has been the deciding factor in population growth.

Even more significantly, the two components of natural increase--birth and death rates--have taken very different directions in the Philippines. Registered births and deaths show a decline since World War II. However, the registration of vital events is so seriously incomplete that almost no reliance can be placed on the recorded figures. Estimates of the birth rate can be obtained indirectly from the number of children enumerated in successive censuses. Special inquiries on the number of children borne by women, included in various rounds of PSSH, furnish additional

evidence of the fertility level of the population. The birth rates estimated from these sources yield a figure between 45 and 50 per thousand. There is reason to believe that this birth rate has been nearly constant over the past 60 years and that it has not declined to any important degree within recent years.

During this same period, the entire world was benefiting from the successful battle to postpone death. The Philippines, along with many other countries, became a beneficiary of these victories and put new public health and sanitation techniques to good use. Estimates of the trend in mortality show a drop from 26 during the period 1926-1930 to 14.5 in 1956-1960. [1]

Obviously, rapid population growth in the Philippines cannot be credited to an increasing birth rate but rather to a declining death rate interacting with a consistently high birth rate.

Demographic Transition

The growth pattern manifested by the Philippines has not been typical of that obtained in Europe and the United States. Historically, in these areas, both birth and death rates were high until the middle of the 19th Century when the advent of modern medicine reduced the number of deaths and lengthened life. Though differing in the timing, these countries all went through a pattern of slowly decreasing death rates following by a diminution of the birth rates. Eventually, a more manageable balance was achieved between the two.

The most striking contrast between the European situation over the past century with that of the non-industrial

[1] Aromin utilized two methods based on the assumptions that fertility has remained unchanged and that the degree of completeness of registration of deaths is similar to that of births in any given year. (The Statistical Reporter, Vol. V, No. 3, July 1961)

nations, such as the Philippines, in the present century is that the death rate has dropped with record speed. In the late medieval period, the average life expectancy in England was about 27 years. At the end of the 17th and throughout the 18th Century, it was about 31 in England, France and Sweden, and in the first half of the 19th Century it advanced to 41. A less conspicuous, but nevertheless significant, difference is that birth rates in Europe, even prior to the Industrial Revolution, had long been lower (usually in the vicinity of 35 per 1,000), due to restraints on marriage, than in Asia today.

Nations in Europe in the late 19th and throughout the 20th Centuries have voluntarily adjusted their fertility to balance the change in mortality. At present, almost every European country has birth rates below 20 per 1,000--lower than in the United States, Canada, Australia and New Zealand. Thus, a consonant decline of births and deaths allowed the European population to grow at a relatively slow pace, and made possible impressive technological and economic developments. Population growth never exceeded 1.5 percent per year during any decade in any Western European country.

Most European countries, along with Japan, now have the lowest rates of increase in the world, generally under 1 percent. Among those showing the slowest growth--0.5 percent or less--are Belgium, Hungary, Sweden, England and Wales. At such a rate, it will take 140 years or more for their populations to double. The gross reproduction ratio in Italy is now only slightly higher than in England, Belgium, or Sweden. In the meantime, their economies can provide ever-increasing standards of living for their people.

This is not the case in the Philippines, where in the last 25 years the rate of increase has risen from about 1.7 percent to over 3.2 percent. At the latter rate, the Philippine population will double in less than 23 years.

The Burden of Dependency

Persistent levels of fertility and a steadily declining

mortality rate in the Philippines have resulted in a heavy concentration of children under 15 years of age. In 1960, the 12.5 million youngsters under 15 constituted 45.7 percent of the entire population. A similar age distribution pattern characterized most of the countries in the ECAFE region, Latin America and Africa. On the other hand, children under 15 account for only 31.2 percent of the United States population, and the average for European countries is around 25 percent.

The significance of these figures is evident. Close to one-half (48.4 percent) of the Philippine population was in the high consumption-low production age groups of under 15 and over 65. Only 51.6 percent of the Philippine population was in the most productive age group, 15 to 64. In other words, there are four or five persons in the dependent age group to every five persons in the productive age group. The comparable figure for the United Kingdom is two dependents for every three workers.

With so many dependent young people, the country's already over-burdened educational facilities must accommodate a very large annual influx of youngsters who, later, will be seeking work. More important, there will be a tremendous increase in the number of girls entering the reproductive age.

The Motherhood Boom

Of the 13.4 million females in the population in 1960, 5.8 million were in the childbearing years, 15 to 44. Women between 20 and 30, the most fertile years, numbered 2.2 million.

By 1980, the high-fertility group of women in their 20's will have nearly doubled. There will be approximately 4.2 million women in this choice childbearing age group in 1980, an increase of 91 percent. This projection is fairly certain because most of these women have already been born.

Only death or disaster could change this potential for future population increase. But the decisions these women

and their spouses make concerning the age at which they will marry and the size of their families could have an intense effect on the size of the population in the years just ahead.

Despite the lower sex ratio at the adult ages, 15 years and over, a sustained increase has been noted in the married portion of the population. One-half of all males, 10 plus in 1960 as compared with only 0.4 in 1903, was married. Among women, the reported rates were similar. During their reproductive years, 15 to 44, 3 out of every 4 women were already married.

In 1960, 47 percent of all brides in the Philippines were 20 years old or younger. Women marrying at younger ages produce faster growth because early marriage brings on early childbearing and younger childbearing means childbearing by a larger proportion of the female population. Women who married below 20 years in the Philippines produced, on the average, 2 more children than those who married later. The completed size of family (children ever born to women aged 45 years or older regardless of age at marriage in 1958) was 6.8 persons. In the United States the average was 2.5.

Most underdeveloped countries have had high rates of infant and child mortality. Under these circumstances large families were necessary in order to assure the survival of enough children, males in particular, to work the land, to carry on the family name and to take care of the parents in their old age.

In the Philippines, findings on the total number of children born to women who have passed through the childbearing period show that the offspring of women with 5 or more children comprise 88 percent of all children born alive. For the more fertile mothers (those with 10 or more children), one-third of all the children born are borne by this group of women.

Among Filipino couples childlessness may be ascribed almost wholly to involuntary sterility. (The same is true to a large extent in the United States.) A mere 4 percent of

wives past 45 years of age did not bear any children.

Fifteen Years Hence

By mid-1965, the population of the Philippines was estimated to have reached a total of 32.3 million. At this rate, how many people will inhabit the archipelago by 1980?

A study of the course of population over the period 1960-2000 was made by Dr. Frank W. Lorimer of the Population Institute.[2]

The maximum projection, assuming unchanging fertility over the 40-year period, shows that the Philippines would have an estimated 53 million inhabitants in 1980 and 111 million by the year 2000.

The minimum projection, which implies a decline of the total fertility rate from a level of 6.8 in 1960-1965 to 2.8 births per woman of completed fertility in 1995-2000, gives 49 million persons in 1980 and 72.7 million by the year 2000.

Whichever figure is realized in 1980, it is apparent that population growth will be startlingly swift. Even with a drastic decline in fertility, 46 million people will have been added to the population in 40 years, implying nearly a three-fold increase from 1960.

One has only to consider this phenomenally rapid expansion in relation to past population growth to realize the shattering impact it is bound to have on every aspect of Philippine life. From the time of Magellan's voyage to these islands in 1521 where there were about half a million Filipinos, it took four and a half centuries to add over 30 million people--the increase now anticipated in about two

[2]Population projections were prepared using three different assumptions of the course of fertility. See his background paper entitled "Analysis and Projections of the Population of the Philippines."

decades!

The Trek to the Cities

Struggles with the land combined with the attraction of widening opportunities in the cities is slowly changing the Philippines from a rural to an urban nation. Occurring gradually at first, urbanization has accelerated since World War II. According to the 1960 census the population living in cities was 4 million (15 percent of the total population). However, if the definition of urban in terms of minimum population size and residential density is applied, 30 percent of the population could be considered urban in 1960.

The primate urban area, spread over 37,823 hectares, is the Metropolitan Manila complex containing the City of Manila and its seven adjacent suburban towns. In 1960, 2.1 million people resided in the metropolis, representing a 56 percent increase over 1948, while the rise in population for the nation as a whole was 40.8 percent.

Manila not only serves as the commercial, industrial, and educational center of the Philippines, it is also the hub of its political and administrative organization. In 1960, 4.2 percent of the population (1.2 million people) lived in the City of Manila alone. The remaining 900,000 were found residing in the suburbs. Another 1.7 million lived in the fifteen largest cities outside of the metropolitan area. Together, the 3.8 million city dwellers constituted nearly one-seventh of the entire population.

In such cities are concentrated the country's unemployed, and the nation's densest areas. Colonies of squatters and destitute migrants have accentuated existing slum squalor and in the process created new slums.

Analysis of place of birth and place of residence data point to two great migration streams. South of Manila to as far down as Samar, the move is northward to the metropolitan area. From Cebu and points south, the stream is headed southward toward the frontier areas of Mindanao.

People and Jobs

In the 1960 census, some 8.5 million persons were reported in the labor force. No comparable figure can be obtained from the 1948 enumeration because of differing definitions. Data from the earlier censuses refer to the gainfully occupied population rather than to the labor force.

With fertility remaining constant, the labor force is expected to expand by 96 percent between 1960 and 1980 reaching a total of 16.9 million. Even with a decline in the level of fertility, the increase in the numbers reported in the labor force will not be much less prior to 1980. If so, employment must be found for an additional 8.4 million persons in the 20-year period. Each year, an average of over 400,000 new jobs must be created to absorb those entering the labor force for the first time.

This gigantic task will require change and expansion in many directions. Most of all, it demands a change in the Philippine connotation of employment and job.

Most Filipino workers today are neither participating in the country's industrial and commercial world nor sharing in its rewards. They are still largely committed to primitive farming methods.

In 1960, more Filipinos (65 percent of the labor force) were engaged in agriculture than in the production of all other goods and services combined. Taking male workers alone, an estimate of 1.2 million farm workers were added since 1939. It could be assumed that there was only a slight movement out of agriculture during the last two decades.

Next to agriculture, service occupations employed more of the increment to the labor force than any of the remaining occupations. The service category covers a wide range of occupations from domestic worker and food peddler to government jobs which are more remunerative and require some skill. However, in the more menial tasks available to the unskilled youngsters and newcomers from rural areas, the income is very low indeed.

The Philippine labor force is defined as including persons 10 years old and over. Of the 8.5 million economically active persons, 591,550 Filipinos were reported unemployed in 1960. Thus, the 1960 census disclosed an unemployment rate of close to 7 percent.

A closer inspection of the figures should reveal the true picture insofar as the nature of employment is concerned. Of the high proportion of workers (65 percent) reported in agriculture in 1960, one-half were self-employed --this could imply ownership of large landed estates or, as is more likely, a couple of hectares at most.

Similarly, many workers in non-agricultural industries were not employed in large establishments, but were self-employed in almost all kinds of trade from bootblacking to barbering. More than 45 percent of the total employed population was self-employed--a condition which bears watching. Such a high degree of individual initiative suggests that, more often than not, the workers lacked a more profitable alternative.

The percentage of self-employed workers in specific occupational categories is shown below:

Agriculture	54	Commerce	54
Mining	7	Transportation	16
Manufacturing	44	Services	7
Construction	19	Unspecified	23
Utilities	2		

The Three R's

By 1960, three out of four persons aged 10 years and older could read and write. Although the number of literates had increased over 6 million in eleven years, yet there were almost the same number (over 5 million) of illiterates in 1960 as there were in 1948.

The enrollment in elementary grades was 4.2 million pupils in 1960, a figure very similar to that reported for 1948 due to the backlog caused by World War II. However,

the number of 5 to 14 year olds who were not receiving an elementary school education in 1960 was seven times that of 1948.

Buildings, classrooms, textbooks and qualified teachers are in short supply. An annual average of 1,900 buildings, both permanent and semi-permanent, were built during the 5-year period 1956-1960. In spite of advances made, the educational system has not been able to cope with the backlog from the past and to absorb the yearly increases in school population.

If fertility continues unabated, there will be 14.8 million children aged 5-14 in 1980 in contrast to 7.5 million in 1960. School facilities would have to double in 20 years.

A change in family size could improve this outlook considerably. If the total fertility rate were to decrease from 6.8 to 4.8 between 1960 and 1980, the number of children 5-14 years would be smaller than expected by over 1.7 million. This reduction would release resources essential for the enlargement and improvement of the quality of secondary and higher education.

The five-year social and economic development programs set yearly targets for building and maintaining schools, training teachers and increasing staff. Plans also provide for the expansion of secondary and higher educational institutions and technical training centers. While an increasing flood of seven-year olds demands more primary schools, the conditions of development require more highly trained citizens and more and better facilities for technical and higher education. Today, the Philippines is spending about one-third of the annual national budget on education alone.

In the midst of its struggle for development, the nation is faced with difficult choices; as for example, enlarging the allotment for education or increasing the amount of the national budget allotted to economic development, and between augmenting the elementary school budget or investing more heavily in more advanced education.

With so many dependent children, the choice more often lies in favor of education rather than economic development and on elementary school instead of higher education. In the meantime, families with many children must strive to obtain adequate food, shelter, and clothing. These basic wants take precedence over expenditures for schooling even if the latter would ensure greater productivity and larger income in the future.

Conflicts and Resolutions

For centuries, the survival of families and of nations depended on many births to offset high mortality, especially in infancy and early childhood. The yearning for health and long life being universal, techniques for controlling deaths swiftly gained wide acceptance. However, man's deep emotional concern with fertility caused him to resist or remain indifferent to all attempts at controlling births.

The Philippines, like many other Asian nations, is an economy in transition. Recent declines in mortality have mainly been a consequence of concentrated efforts to control epidemics, of the introduction of modern medical practices and public health facilities, and of recent advances in medical science. It is expected that the decline in mortality will continue even if the level of living does not improve rapidly. However, economic and social development would undoubtedly accelerate the decline in mortality.

It is far more difficult to anticipate the future trend in fertility. There is general agreement amongst experts that fertility will decline as living standards improve. Data on the average number of children born to married women in the Philippines display the same differences by residence and by socio-economic status found in Western countries. The results demonstrate that the better educated city resident high on the socio-economic scale produces less children than the lesser educated villager of low status. Yet Western experience suggests that changes in economic and social conditions do not produce immediate effects on the level of fertility. And, in any case, Western experience may not be repeated here.

A reduction in birth rates is essential if the problem of numbers is to be solved in the long run. A lowering of the birth rate is of course not the complete solution to the improvement of economic conditions in the Philippines. It is a major element, but social and economic factors are also involved. Whatever the course of fertility, the rapid increases in the numbers of school-age children, in persons in the productive ages, and in families will continue for the next fifteen years. These are the groups already born and their size can only be altered by varying death rates, not by changing birth rates.

Urbanization, industrialization, expansion of cultivated land, and increased productivity in agriculture are necessary to the modernization of the economy. Yet modernization is unlikely to progress on a broad front in the face of a very rapid increase of population, the scarcity of good unused land and the density of settlement on existing lands.

Given the achieved actual size of the base population and the rapidity of growth, planned transfers of population to untapped lands will not solve problems of population pressure and population growth. For several decades now, Mindanao has been viewed as the "land of promise" capable of supporting the entire population of the Philippines for years to come. Although Huke[3] found its cultivable area to be slightly more than 4.4 million hectares (about 46 percent of Mindanao's total surface area) yet he claimed that at the rate of growth reported for this island in 1960, all available farm land will be settled by mid-1968, scarcely three years from today.

Although the development plan of the Philippines notes

[3]In his attempt to estimate the maximum potential agricultural area of Mindanao, Robert E. Huke (Philippine Geographic Journal, Vol. VII, No. 2, April-June 1963) prepared a contour map showing the five categories of slope indicating probable limits of various types of agricultural practices considering soil and rainfall characteristics of the island.

that population pressure and the high rates of population growth have tended to offset improvements in levels of living, there is as yet no move on the part of the government to launch a family planning program. The Manila Health Department, however, has undertaken a family planning program in three pilot areas located in the most densely populated city district. A team of doctors and nurses are passing on the message about family planning to private medical practitioners, hospitals, clinics and civic leaders. The gains are slow and a more vigorous health education and dissemination program will soon be undertaken.

Thus far, survey findings merely serve to raise questions for further study. The channels of communication to be used for informational programs, the content of such programs, and the underlying psychological principles to be considered in planning effective programs for disseminating knowledge on family welfare planning are all relevant to the problem. In addition, the pros and cons of very early marriage as well as the role of parents play in decision-making relating to their offspring's marriages are well worth looking into. Furthermore, the obstacles to change such as feudalistic land tenure systems, isolation, lack of communication and strong adherence to traditions are still clearly visible and operative in the society.

The future is uncertain and perhaps precarious. We cannot complacently assume that progress will come more or less automatically. There must be realistic planning, and firm implementation of the plans. We cannot safely ignore any major handicap to the achievement of the nation's goals.

TRENDS AND PROSPECTS OF POPULATION GROWTH*

by
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I would like to close this Conference by quoting William Vogt, in his latest book "People". Comparing the growth of human population with the human pulse rate, he said: "Count it for a few second.... Assuming that you have a normal pulse beat it will not quite keep up with the increase in world population.... Everytime your pulse throbs, the population of the world will have added more than one human being." This appalling increase could not be ignored by man, being an important element in world population trend, it is man's responsibility to perceive the results of his handiwork.

Only a decade ago the subject of population was reserved for population specialists and demographers. But now, due to its increasing implications it has become more and more a topic of everybody. Even the man on the street would like to know something about population trends.

Population data and its inferences and conclusion are speculative but they provide a reasonably sound perspective and permit a very firm conclusion that whatever the precise numbers may be, we can safely say that man has experienced tremendous acceleration in his rate of growth. With an initial population of 3 billion alone as has been pointed out, the present rate of world population growth would give a population of 50 billion in 142 years. This is the highest estimate of the population and the highest carrying capacity of the globe calculated by a responsible scholar. Statistics may not be accurate but population experts agree that between 80 to 100 individuals are added to the total world population every minute. An average of

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*Closing address before First Population Conference, NSDB Science Pavilion, Manila, November 24, 1965.

270,000 babies are born every day, 142,000 people die, leaving a gain of about 128,000.[1] This means 128,000 more mouths to feed, bodies to clothe, shelter, and minds to educate, a really fascinating rate of world population growth.

When we talk of people we cannot ignore the earth in which we live. The land surface of the earth covers approximately 58 million square miles, so that if the people were distributed evenly, there would be about 50 per sq. mile. This distribution is far from even because something like half of the land is unsuitable for human settlement, because of unfavorable climate or soil and much of the remainder presents difficulties of one sort or another. The ice-covered Antarctic Continent alone includes 5.1 million sq. miles and large parts of the Northern hemisphere are frozen. Then there are the deserts--the Sahara alone covers more than 3 million sq. miles and the regions of precipitous mountains.[2] Actually two-thirds of the 3 billion total population live crowded into about 4.2 million sq. miles of land.[3]

Why is there a spectacular and rapid population growth or shall we say "demographic revolution?" The answer lies in the profound changes that have taken place in man's way of life and in the social order and the combination of other developments which brought about a sharp and unprecedented decline in death rates with corresponding increase in the average life span.

Prior to World War II the spectacular decrease in the death rate of the economically advanced nations had not been shared by most of the population of the world. Of the peoples of non-European stock only Japan had managed appreciably to increase longevity. The two-thirds of the world's people who live in the economically underdeveloped regions like Asia, Latin America, and Africa before World War II had achieved some decrease in mortality largely through contact with advanced nations. But most of the world's people, prior to World War II, were characterized by an expectation of life at birth no greater than that which Western Europeans experienced during the Middle Ages.

The less developed areas of the world containing two-thirds of the total population are now the most rapidly growing regions of the world. They are increasing at rates which would double their population in 20 to 40 years.

At present a number of industrialized countries of the world largely European nations and Japan are growing relatively slow at rates which would double their population in from 50 to 100 years. The annual rates of population growth among the nations rarely exceeded one percent per year through natural increase during most of Modern Era. This slow growth of the highly industrialized countries with higher educational levels presents problems to a country's development, the reason why population growth has now come to be of a problem of international concern.

It is appalling to contemplate population projections because to reach one billion people took thousand of years. That was in 1830. It required only one century to add the second billion--1930. To add the third billion took less than 35 years. If the present rate of increase continues in the next fifteen years there will be another billion people. Most of them in countries now receiving U. S. aid.[1] Should the present trend continue, population of the world as a whole would increase from about 3.3 billion in 1964 to approximately seven billion by the year 2000, and we do not know what lies beyond since 2000 has just 40 years to go. There will perhaps be a greater increase in world population than was achieved in all the millennia of human existence to the point that the world is full packed with no standing room left.

Let us first ask this basic and fundamental question: Is there really a population explosion in our country today? Official figures given by the Bureau of Census and Statistics show that from 1903, to 1918, to 1939, and finally to 1948, the average annual rate of population increase was about 2.0%, whereas from 1948 to 1960 the rate of increase was almost 3.1%. This latter figure, taken in itself alone, is quite high indeed. Stated in another way, in the decades before 1950 there was an overall net increase of one Filipino every 95 seconds; in 1950-1955, one every 46 seconds; in 1955-1960, one every 39 seconds; and in 1960-1964, one

every 33 seconds. In other words, in the interval that I take to finish this sentence, there has been added one inhabitant to be fed, clothed, sheltered, and eventually provided with a job and the necessary community services. Considering that there are almost 32 million seconds in a year, it is safe to estimate that as a nation, we are increasing in number by about a million souls annually.

There have been development in prospects, yet population explosion, if I may use a non-scientific term, is still a problem of gigantic magnitude. This is an area for scientists, administrators, researchers, etc. to coordinate and work together to think as such and as individuals to find salvation and happiness for the welfare of mankind.

Since population is the benchmark for determining the goals of millions, namely, food, clothing, shelter, good health, education and gainful employment, in order to achieve a higher standard of living, it is worthwhile to consider population in relation to some of men's basic needs.

An expanding population draws heavily on food resources and this problem merits major attention. Although there has been a considerable increase in food production in nearly all regions of the world during the last decade some of the long-range problems are not yet solved. In many areas, the people's nutritional requirements are still beyond the level that supplies have been able to reach. If an adequate diet is to be made available for all the people, the rate of food production will have to increase much faster than population in more than half of the world.

Dr. Burton Oñate of the IRRI reported that in the last World Population Conference in Belgrade, Yugoslavia held last September 1965, certain regions were selected to show the distribution of population, income, agricultural land and agricultural production. These regions were Europe (including USSR). North America, Near East and the Far East. They were chosen to demonstrate the gigantic task that must be done in developing countries to increase productivity from all sources so that there could be some dynamic changes in the standards of living. The figure presented by

the regional distribution around 196 with the world's total as equal to 100 percent. North America contributed 39 percent of the world total income while the population is about 8 percent, agricultural land is 12 percent, and agricultural production is 24 percent of the world's total. Thirty-nine percent of the total population emanates from the Far East region, income is barely 9 percent, agricultural land 10 percent, and agricultural production 16 percent of the world's total. These two regions show the disparity and the apparent differences in terms of the distribution of population, income, and agricultural production. With a larger share of the world's population, the prospects of increasing agricultural productivity in the Far East is large if the percentage of 24 percent for North America is used as the initial target. With the world average per capita food production at 100 percent, the North American region registered over 300 percent per capita food production for the period 1953-1963 while the Far East region reported only about 50 percent of per capita food production for the same period. Again, larger increases in per capita food production can be attained in our developing regions.

As I have indicated in my previous speeches, food production targets serve as useful indications of the intensity with which activities should be pursued. According to assessments made by the FAO, taking into account a "medium" rate of population increase and reasonable nutritional improvement over the present level, by 1975 the total food supplies in the Far East would have to be increased by some 40% in cereals, 110% in pulses, 120% in fruit and vegetables, 155% in milk, and 150% in fats and oils. These present an over-all annual rate of increase of 3.5% or 2.3% in per caput food supplies. A concomitant target is further proposed by FAO: "Any attempt to push up the rate of increase in per caput food supplies has to be accompanied by a corresponding effort to increase the purchasing power of the people so that they may absorb the additional food supplies available. It follows that if the aim to attain the short-term target by 1975, economic development plans should provide an increase in per caput income which, with the known income elasticity for food as a whole, would support a rate of increase in per caput food supplies of 2.3%. The income elasticity of food as a whole being of the order

of 0.8, this rate of increase in per caput income is estimated at some 3% per annum. At a rate of population growth of approximately 2% per annum which rate is still increasing, the aim should therefore be to increase the aggregate national income by approximately 5% per annum.[4]

The FAO made careful calculation of the UN on food production. For the whole world as a whole excluding mainland China, it focus that for the year ending in mid-1961 the increase in food production over the preceding year was only 1 percent, while the population had increased a good deal more than this. However, the preceding year had made a more important gain over the year before it, and the net outcome for the two years together had been to keep the food curve somewhat above that of the population. Population follows a steady curve of increase while food production is a random variable which goes up and sometimes down. How will things fare during the next 25 years if the population doubles and food production goes up? This is the treacherous problem of population.

To fill targets there must be corresponding national food production targets for countries and a definition of the nutritional requirements of the population. On this basis of food production targets, the Philippines has arrived at estimates of volume of production to be reached in 1975 for our people to be adequately fed; namely, fish to be increased by 219 percent over 1962 production, meat and poultry by 337 percent; fruits and vegetables by 560 percent; beans and nuts by 400 percent and cereals by 53 percent.[5]

Increase in population and increase in national income by country are positively associated. Data on national income provide a good yardstick of a country's economic growth particularly when they are related to population trends. The national income of the Philippines was ₱14,577 million in 1963; ₱12,959 million in 1962; and ₱11,737 million in 1961;[6] indicating an increase every year.

There is an expected rapid population growth and even if land existed in plenty if population were one-tenth of what they now are in the crowded regions and still increasing at

3 percent per year, there is the problem of providing the new members of the population with equipment. A country where 3 percent is added to the population every year would require considerable amount of savings to keep the income structure unchanged to prevent the increase of poverty. As income rose individuals begin to purchase new kinds of goods and services. They find it necessary also to buy unanticipated complements to these goods and services with the result that at times their expenditures upon these newer products and complements thereto increased faster than average income. Furthermore, should the world's population continue to grow at the current rate, it will have doubled by the year 2000. While technological improvements probably will partially countervail this tendency toward increasing costs, these partial improvements may not be evenly distributed over the world. At present, in fact, it is the well-to-do nations that enjoy the greatest technological advantages.[1]

It is evident then that too large a proportion of the national income is required to provide for the welfare of the existing population. As it is, there is little left for industrial investment so that some adjustment would have to be made in the rate of capital formation if a doubling of per head income is to be achieved.[7]

Medical Services

The Philippines with its rapid population growth is still in the midst of struggle against the ravages of acute communicable diseases. The Department of Health reported that during the fiscal year 1963-1964 there were in operation 136 government hospitals with a total bed capacity of 15,400 and a total admission of 490,880 patients.

There were 2,403,496 outpatients attended and treated in dispensaries; 38,039 major operations; 45,050 minor operations and 35,464 newborn babies.

Of the 136 government hospitals in operation, with a bed capacity of 15,400; 23 are national, 5 special hospitals, 46 provincial hospitals and 62 emergency hospitals. These are manned by 1,188 physicians; 2,414 nurses; 155 dentists;

182 pharmacists; 143 dietitians; and 6,998 other employees or a total of 11,639 regular employees.

There were also 238 private hospitals registered with a total bed capacity of 10,811 during the period.[8]

Before the major disease killers were tuberculosis, pneumonia and influenza, diphtheria, enteritis, down to such diseases as measles, mumps, scarlet fever. Today some major causes of death are heart disease, cancer, cerebral hemorrhage, nephritis, diabetes. These diseases have debilitating effect on the potential manpower of the country. The cooperation of scientists all over the world in the advancement of knowledge about human affairs can be an important force in achieving a healthy and sound population.

NSDB-Assisted Project on Population Studies

In several other countries, projects have been moving forward through some sort of governmental support. I wish to state at this instance that the NSDB is assisting projects on population studies, namely: A Study of the Vital Statistical Rates and Causes of Death in a Philippine Rural Community, and a Study of Vital Statistics and Differential Fertility in a Medium-sized Philippine City. These studies are expected to provide a good picture of the fertility and mortality situation and reliable estimates of the vital statistical rates in a medium-sized Philippine city. Technical as well as financial assistance is extended to the proponents of these studies in order to achieve the desired results.

Concluding Remarks

The significant immediate human problem is the threat of destructive war, and just beyond lies the threat of an overwhelming population. The more rapid the population grows, the more important it becomes to foresee future increases and to take them into account in planning investment programs so as to create sufficient job opportunities for the growing labor force and to ensure adequate food, clothing, housing, educational facilities, etc. There may

be no standard formula for avoiding the threat of war or the overwhelming population and no one has a dependable crystal ball or foolproof formula for achieving a utopia but planners must be aware of what the prospects are for future population to set desired goals and plans.

Advances in the sciences and technology have provided us a wealth of knowledge and techniques by which we can size up contemporary problems and by which we can solve them. However, the application of scientific knowledge and technology to any particular community will only be successful to the extent to which they have been simplified and made practicable to suit prevailing conditions and traditional patterns. This implies the potent role of education. For it is the special task of education to translate the complexities of science and technology into minimum changes in customary practices and, by suitable teaching and organization, blend them into the way of life of the people. For on the solution of the population problem depends the future welfare and happiness of mankind.

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POPULATION AND SOCIO-ECONOMIC GROWTH IN THE PHILIPPINES

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Medicine is a social as well as a biological science. propose to dwell largely, though not exclusively, on the social consequences of medicine's magnificent contribution in the prevention of death and the prolongation of life, particularly as it affects the Philippines. The focus will be on overpopulation, which I will define later. First, I wish to consider briefly a few myths and related questions in order to put this presentation on population problems in proper perspective.

Myth No.

The high birth rate, approximately 45/1000, is due to the fact that the Philippines is a Catholic country.

This point of view does not explain the equally high birth rate of the Moslem minority. Neither does it explain why every predominantly Catholic country in Europe, and there are at least nine such, has a lower birth rate than the United States, a predominantly Protestant country.

Myth No. 2

The Catholic Church favors large families and is opposed to child spacing.

How then does the University of Santo Tomas, one of this country's prominent Catholic institution of learning, dare operate a family planning clinic? What of the many family planning clinics operated by the Church all over the world?

Myth No. 3

The Philippines is closing the gap between the devel-

oped and the developing countries.

The fact is that the gap is getting larger.

Ronald Freedman points out that, "A U.N. study finds that fertility divides the less developed from the more developed countries more consistently and more completely than any other single available indicator." No country with a birth rate over 30 is classified as a developed country. Recall that the Philippine birth rate approximates 45, official statistics to the contrary notwithstanding.

Myth No. 4

Significant reductions in birth rate will ease the socio-economic problems of this country in the very near future.

Over 50% of your present population is under 18 years of age. This age group is an economic liability. These young individuals must be provided with an education, with jobs, at least for the male component, with health services, housing, food and clothing. I will dwell more on this point later. Suffice it to say that without concomitant vigorous economic and agricultural development, reduced birth rates may eventually ease, but do not per se solve your socio-economic problems.

Myth No. 5

The population problem can be solved by colonizing the moon or other planets, by living under the sea or by migrating to countries, such as Australia, where there are no population pressures.

I consider these solutions so impractical for the immediate future, so expensive and so contrary to national policies of governments such as Australia; that they are not worthy of present consideration. If they eventually do become practical, it solves no problems, for we face the problem of overpopulation now, not sometime in the vague future.

Myth No. 6

There does not exist in mothers, however underprivi-ledged or destitute, a desire to space childbirths and limit their numbers.

All surveys, public and private, in the Philippines and elsewhere reveal that over 50% of women questioned, Catholics as well as non-Catholics, say they are anxious to limit the size of their families if they could be shown how.

I think of no other myths to explode. Perhaps this audience in the discussion period will think of others.

Today, you are facing four eruptions in the Philippines: Taal Volcano, population, the rising tide of expectations, and the atomic bomb. Rising expectations, frustrated by population increases, constitute a far greater threat to your political stability and socio-economic development than the bomb or the volcano.

I am going to assume that most parents are anxious to provide their children with love and affection, a moral upbringing, education, medical care, sufficient and proper food and clothing, and with opportunities to live their lives in comfort and dignity. If you accept this statement, then you must accept the conclusion that most Filipino parents cannot meet these expectations unless they control the size of their families.

Seventy-six percent of Filipino families earn less than 2,000 pesos annually in money and in kind. This represents 39% of total Philippine income. How large a family will this sum support on the basis of criteria just enumerated?

How fast is the Philippines growing? The official rate is 3.2% a year. Some say this is too low.

What is overpopulation? When the population increases faster than the economy and educational opportunities, the country is overpopulated. You will note that the definition says nothing about density or numbers. I must now establish that the Philippines is overpopulated.

The estimated income, in cash and kind, for all Filipinos in 1965 is 17 billion pesos (11.7 billion pesos at 1955 prices). Annual income has increased at a rate of 11% annually since 1958. But this is not too important a figure. The important figure is the percentage of income that is diverted to capital formation. This is the sum that is used to generate more income, the money that goes into schools, machines, roads, bridges, preventive medical services, etc. For every 1% population growth, 3% of income must be diverted to capital formation, not to improve your lot, not to close economic gaps, but to stay even, to end the year as well as you began it. Since the Philippine population is growing officially at 3.2% a year, then 10% of income or approximately 1.7 billion pesos must be saved and used as capital to be as well off tomorrow as you are today. How much are you saving? Pessimistic economists say 8% of income or approximately 1.35 billion pesos. Optimistic economists say 12% or 2 billion pesos a year. At worst, you end the year less well off than you started. At best, you are very slightly better off at the end of the year. Consequently, I say, you are enlarging the gap between the developing and the developed countries. The statistical comparisons with developed countries bear me out, though I will not bore you with the statistics here.

You must provide nearly 5,000 pesos in capital for each job created. Let us forget the 10-15% of Filipinos that are under- or unemployed. Approximately 400,000 new individuals now enter the job market each year. This requires nearly 2 billion pesos of capital each year if they are to be provided with jobs. I must conclude by this criterion that the Philippines is overpopulated.

Let us examine your food situation. This country has not and is not feeding its present population from its own agricultural resources, even though it is essentially an agricultural economy. If one judges the future by the past, it will fail to feed its growing population during the next decade or two. Food is your second largest import. Your staple, rice, with the occasional exception, has been one of the imported food commodities since the turn of the century. Can you raise more food? Yes, but you have yet to raise enough to feed your growing population.

You must put more land into production, then. Unhappily, your land that can be converted to agricultural production with minimal capital expenditure is mostly gone.

Farming requires capital expenditures, too. Hever calculates that to attain a 3.5% increase in agricultural production requires an investment of 22% of the net agricultural product. Your agricultural production for 1964 was 3.2 billion pesos. This includes forestry and fishing. Thus, 700 million pesos of the 2 billion pesos previously postulated for the creation of new jobs would have to be spent in preparing land, supplying irrigation systems, carabaos, fishing ponds and boats, log-hauling equipment, reforestation, etc.; not to create a surplus, but just to stay even with population growth. I am assuming present Philippine production norms. If you wish to eliminate the present food deficit, even greater expenditures than those postulated are required. This can be accomplished by increasing present production on land already under cultivation, provided you can overcome the cultural deterrents, establish more irrigation systems, provide better seed, more fertilizer, and effective rodent, insect and plant disease control, as well as food storage facilities, market roads, etc. Since 1955 your food production has increased by 3.2% a year excluding livestock. This sounds as if you are keeping up with your population growth. This is not so, unfortunately, since the greatest increases are export products such as sugar and coconut.

Ingrained inefficient agricultural practices are changed through education, only with the expenditure of much time and effort. This costs money as do the other items I have just enumerated.

Again, I conclude that the Philippines is already an overpopulated country.

Does anyone in this audience question the overriding need for more elementary and high schools? Is there any question in your minds that your government has not supplied sufficient safe water, adequate roads and bridges, enough medical services for the indigent and adequate preventive medical services for the entire population? These

things cost money your government does not have. It can get the money only from you or by borrowing. Lenders are hard-headed. They expect to be paid back with interest. Is your future outlook sufficiently bright to insure the necessary flow of capital to provide the essential service you so clearly need? You are despoiling your forests and ruining your fishing grounds. I repeat to you only what your own newspapers have been saying and documenting.

I have seen it written, unhappily, by a member of our own profession, that this country will not be overpopulated for 200 years. Assuming present birth and death rates, and the death rate is likely to be further reduced, what do you propose to do with at least 10 billion Filipinos 200 years from now? This is three times the present world population, most of which is now poorly fed, poorly housed, poorly clothed, and poorly educated. You are not adequately providing for 33 million now. You are overpopulated now. Our profession has a clear responsibility to help meet this challenge. Otherwise, we condemn ourselves to political instability and socio-economic deterioration. We defeat God's desire to see His creation working to achieve peace, tranquility, happiness, and dignity in this temporary earthly abode.

ON POPULATION CONTROL AND FAMILY PLANNING*

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Instead of talking on the subject of Community Resources for the Expanding Family, about which I am not qualified to speak, I shall discuss some general issues concerning the problem of population control and family planning as one of the measures for population control. This is intended to serve as a springboard for subsequent discussions this afternoon and tomorrow.

We who are here present can truly say that we are among the leaders of the Philippine population. In what sense can we say that we are leaders? We are leaders in the sense that we are concerned with the condition of the Philippine population. The very fact that we are here assembled is evidence that we care for our people. To me, a primary characteristic of a leader is that he is truly concerned, he truly cares for others. He cares not only for his own advancement or of his immediate family, but his caring is beyond himself and his family--for his neighbors, his community and his people. We are leaders in the sense that we take time out to identify the problems of our people, to imagine and anticipate the problems they will face in the future and to seek methods of alleviating these problems. We care for our people and in seeking to help them, we study and investigate the problems for which they need help and the most effective ways of providing this help. We are leaders in the sense that we are in a position to influence our people and to generate changes for the better in their way of life. We recognize various levels of leadership. Though we may not be in the upper levels of leadership, we are nevertheless leaders among our people. The

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municipal health officer, the teacher, the community development worker, the rural health worker, the social worker, all are leaders among the people with whom they work. They serve because they care for them, and they seek ways of helping and changing the way of life of their people.

What in fact do we seek for our people? Firstly, we are concerned for the survival of the nation. We desire that the Filipino nation remain an independent and sovereign people, that is, remain strong enough to stand on its own and not be dominated by any other people. We have had enough of foreign domination, and we desire that our newly found independence will be secure. But national survival is not sufficient. We aspire to a level of living that is higher than what we have experienced in the past and what we are experiencing at present. We would like our people to have better social and public services and more opportunities for artistic expression. In short, we would like them to live a more abundant life; not merely a comfortable life, but a life where most of them can have the opportunities for full expression and full development of their individual talents and capabilities. When I say this, I am in fact assuming that we, the leaders, think in this fashion. I cannot, however, assume that the great mass of the population, the great majority of our Philippine families, consciously desire all these. We hear about the so-called wave of rising expectations, but I am not too intimate with our rural families to make a statement about their expectations and aspirations. You who have been working closely with them are in a better position to judge.

To simplify, what we seek is progress, sometimes referred to as modernization. We generally look to the advanced countries of the West as models. We aspire to approach their level of living by using modern Western technological devices. By importing and using the technology of the West, we hope to achieve some degree of progress or modernity. Do not the rural health worker, the teacher, the community development worker in fact all contribute to this over-all effort to raise the level of living of our population by introducing the methods of science and technology? It is clear that they do.

Everyone, I believe, recognizes the barriers to progress, although some people are not too clear about certain factors, or refuse to identify them as barriers. Many will agree that excessive dependence on the part of the majority of the Philippine families is a barrier. The lack of self-confidence, the feeling of insecurity, the lack of self-reliance among many Filipino families are barriers to progress. The clinging to superstitious and traditional primitive practices are among the many components of a general resistance to change and progress. The lack of savings, and therefore inadequate capital formation, low national income relative to the necessary improvements that have to be made, are barriers to progress. Personalistic, familistic, clannish and regionalistic attitudes are barriers to progress. The perpetuation of dependence and a semi-feudalistic condition among our people by those who occupy the seats of power is a barrier to progress. Finally, the rapid rate of population growth is a handicap rendering much more difficult our efforts at elevating the level of living of the population.

Apparently not everybody is agreed that the rapid rate of growth of the Philippine population is in fact a problem. There are some who still believe that while the other factors are indeed problems, population growth is still not a problem. Our task, therefore, is for us leaders to convince other leaders that rapid population growth is a basic problem and an important barrier to progress. I am not certain whether those of you who will be involved in a family planning movement need first to be convinced that rapid population growth is a basic problem. I believe, however, that if you are so convinced, you will be more highly motivated in participating in a family planning movement.

As will be discussed in later sessions, a family planning movement will involve many sectors of the population. Of course it will involve the great majority of families who will in fact be the ultimate implementers of family planning. The movement will involve different leaders like you and I--physicians, teachers, social workers, community development workers, rural health workers, government administrators and policy makers. All of these leaders must believe in what they are doing, and it is best if they

can be convinced that rapid population growth is a major barrier to progress and that family planning as a measure for checking rate of population growth is an important means for national progress. Among the various leaders, the physicians constitute a critical sector because for the most part they will be the sources of technical advice and the practitioners of technical procedures. In my opinion, therefore, a good deal of attention must be given to seeking the active involvement of physicians in a family planning movement. I have no intention of depreciating the role of other workers, but it is my observation that physicians will play the most crucial role.

It is important that physicians and other workers who intend to participate in a family planning movement secure as much facts and evidences as they can and come to a personal decision as to whether or not it is necessary to check the rapid growth of the population and as to whether or not family planning would be the best means for checking population growth. I submit that these workers should first arrive at a decision, a personal commitment, because they will have to convince other physicians and other workers and because in their actual work with families, it is best that they really believe in what they will be doing. The discussions this morning, this afternoon and tomorrow are expected to produce various evidences and facts about population growth and family planning, but physicians and other workers must go beyond these facts and must seek through readings, conversations and further discussions such information as will lead them to a firm personal decision regarding family planning, in general, and specific methods in particular. I notice that physicians who are already convinced about the need to check population growth and who have in fact enlisted in the family planning movement differ in their acceptance of the different technical procedures recommended. This is to be expected; but my point is, that each worker must make a personal decision.

Coming down to the level of the families with whom we must ultimately work, it does appear that we have to talk not in terms of national survival, not in terms of national progress or national aspirations, but in terms of immediate family welfare. It has been observed that we as a

people have difficulty in thinking about abstractions such as democracy, sovereignty, nationalism or national progress. Perhaps we leaders can think in such ways, but it seems that the great mass of Philippine families have no use and have no feeling for such abstract ideas. In fact, even among us professionals, among us leaders, it is not very easy to imagine, to visualize, the billions of pesos that are required for capital outlay and the delivery of social services needed by the growing population. For most of us, it is not easy to think of even one million pesos. How much more difficult it is to think of one billion or 4 billion pesos. This is one reason why quoting financial statistics does not produce a really convincing effect regarding the serious nature of our population problem.

Hence, at the family level, we need to seek different ways of motivating families to reduce family size. It may be stated that some families are already motivated, that they in fact seek information for limiting the number of children. This is true, but it may also be observed that the families who seek help already have many children. Of course, helping such families will contribute towards reduction of population growth, but there still remains a large segment who need to be motivated, those who still have few children, or those who are just beginning to build a family. These will be the difficult families to work with. They may still be highly optimistic concerning their future; they will need a lot of convincing and the means for convincing them effectively must be sought. Various means have been tried in other countries. Some have succeeded and some have failed. The trouble is that what have succeeded in some countries will not necessarily succeed in ours, nor those that failed necessarily fail among our families. This means that we have to be really knowledgeable about our own people. Of course I recognize that most of you who are in rural development work and in extension work already realize that for you to be able to help, you must know our people thoroughly. The point, however, is that while most of us know a little or we feel we know our people, the more we examine, and the more we talk about, and the more we read about our people, the more we discover that there are many things about our people that we do not clearly recognize. Our people may be so close to

us that we take many things about them for granted; we must take time out to crystallize, to identify clearly and separately their different ways of living, their thinking, their values and their behavior.

What does one emphasize when dealing with the family? Does one stress the health of the mother; the draining of her health as a result of repeated and frequent pregnancies and births; and the better chances for good health of the mother if babies were spaced? Or does one emphasize the health of the children, the greater possibility for good care of the child if not very soon followed by another child? Or does one emphasize the greater chances for education of the children if there were fewer to educate? Or does one emphasize the greater chances for the children to grow up to adulthood if there were fewer of them to rear? Or does one emphasize the hardships the parents will have to go through if there were many children, and the ease and comfort they could enjoy if there were but few? Or does one emphasize what appears to be or what is most important to the particular family? I really do not know the answers, but I submit that those who will be involved in working with families need to find the answers.

Finally, would like to end on a moral note. What we call progress generally includes the attainment of greater freedom relative to our environment, that is, we are less and less dependent on the weather and the other physical conditions of our world. We are more secure in terms of food, health and safety. We are freed from continual toil and drudgery; we need no longer use human beings to supply the power to do much of the work that must be done since machines can now do the work formerly done by the human hands. Progress has generally been associated with more leisure time and more opportunities for the expenditure of human energy in activities other than those intended for mere survival. There is no real progress, however, if the leisure made available by modern technology is not fully utilized for the development of the individual's talents and capabilities. So, in the whole movement of community development of which family planning will be a component, the idea should be not merely to raise the level of the family in terms of production, in terms of savings,

education and political participation, but also to open their eyes to the greater possibilities for individual development. I do not think that we want richer and comfortable families only. I believe we want more than this; we want families that can demonstrate what we human beings can develop into, not merely what we can have in life but what we can be. In the last analysis, what we want are not merely Filipinos securely provided with the necessities and comforts of life, but Filipinos who are better men and better women.

RESPONSIBLE PARENTHOOD*

Geronima T. Pecson
Chairman, UNESCO
National Commission of the Philippines

If estimates of expert demographers are correct, and I have no reason to believe they are not, I would like to invite your attention to the likelihood that by the time I consume the first minute of my talk to you today, three Filipino babies shall have been born together with 180 babies around the world. And by the time your annual meeting is over this afternoon, this number will have increased to 1,260.

The same demographers tell us that during the last three decades, medical science has cut down death rates in almost all countries. As a result, more men are living longer.

Both of these phenomena should originally be cause for rejoicing. For who among us here is so inhuman as to shut the doors of life or open the gates of death to fellow human beings? It has been well said that every child deserves to be born and all men are entitled to life, liberty, and the pursuit of happiness.

Unfortunately, life is not so simple.

A more sober look at life in our world today cannot fail to impress upon the ordinary observer what many others have already seen and talked about in bold and blunt terms --that what has now come to be known as population explo-

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*Speech of Mrs. Geronima T. Pecson, Chairman, UNESCO National Commission of the Philippines, during the First Annual Meeting of the Family Planning Association of the Philippines, Inc., on Saturday, December 11, 1965 at the Science Hall, Philippine General Hospital, Manila.

sion is second only to nuclear war as a threat to mankind's existence. For while the world's population is increasing by geometric progression, the size of our planet earth remains the same and its productivity is diminishing in inverse proportion to the increase of population.

Let's take a closer look at the population figures for the Philippines. At present, it is estimated that there are over 32 million people in our country. This number is expected to double in less than 20 years and if the trend continues, there will be over 120 million Filipinos in the year 2000, barely 35 years from now and within the lifetime of some of you who are here.

To a group such as you, these figures are familiar. And you know as much as I do the formidable demands of a rapidly expanding population for a corresponding expansion of our educational effort, for an increase in employment opportunities, for a more extensive food production program, and for more and varied social welfare services. All these we need to do and are trying to do what we can with limited resources but we find that even with our best, there continues to be more children than we can afford to educate; there is an increasingly bigger labor force in comparison with the number of available jobs; more and more people go to bed hungry every night and many of them do not even have beds to go to; and, despite the additional 1,000 or so doctors who passed the recent board examinations, many of our people are destined to live without the benefit of the least medical care or to die without knowing that modern medical science can make dying a little easier to bear.

These and many related problems, multiplied many times on a global scale, have set leaders of our world to thinking. The United Nations has organized two international conferences on population. Its agencies, particularly the Food and Agricultural Organization, the UNICEF, the WHO, and the UNESCO, have echoed and re-echoed by means of all forms of mass media the concerns expressed in these conferences. All over the world, the dark forebodings of a possible human deluge have alerted national governments to adopt measures to cope with the problems.

India, in its third Five-Year Plan (1961-1966), has adopted a national program of family planning involving intensive education, provision for facilities and advice on the largest scale possible, and widespread popular effort in every rural and urban community. For this program alone, the Indian Government has allocated $105 million during 1961-1966.

Pakistan organized in 1957 a Central Family Planning Board which works with national family planning organizations and the Pakistani Government has appropriated $6.4 million for family planning services from 1960 to 1965. Sweden is assisting Pakistan in the establishment and maintenance of model family planning clinics and a national program of birth control education.

In Japan, family planning guidance is provided in nearly a thousand public health centers manned by about 50,000 midwives and nurses. This program is coordinated by the Health and Welfare Ministry which works with several voluntary family planning organizations.

In South Korea, the Government launched in 1962 an official family planning program which involved the establishment of 200 clinics and a program to familiarize parents with family planning techniques.

In the Barbados, the Government subsidizes the activities of a local Family Planning Association.

In Egypt, a National Commission for Population Questions was organized in 1953 and in 1959 a total of 24 family planning clinics have been established.

You will be interested to know that in the Conference of Ministers of Education and Ministers Responsible for Economic Planning of Member States in Asia, held in Bangkok only two weeks ago, the Ministers saw fit to recommend rather strongly that "further attention must be given to the role of education in family planning."

These are only a few of the fast-increasing number of national and regional efforts all designed to stem the tide

of population increase. I cited them to you for a purpose, and that is, to emphasize the fact that, although our population rate of increase is higher than those in the countries mentioned and is, in fact, one of the highest in the world, what we have done so far in this area of concern is far from what is desirable because we are forced to twiddle our thumbs within the narrow restrictions of tradition and other impediments which have been misunderstood more than understood.

Your National Meeting today, the first of its kind, I understand, might well cause an effective breakthrough--a much needed one especially since in addition to the already known imperatives for population control and family planning, you are here to exchange insights on the role of family planning in the preservation and enhancement of better health among our people. This is a dimension of the problem which needs to be better understood and appreciated. Besides, it is one in which the individual, particularly the young parent, can find direct and immediate benefit and, therefore, it has tremendous potential as a motive force in translating into action and reality the noble intentions and pronouncements of international bodies.

I shall not presume any degree of expertness and allow myself to be tempted to tell you about the technical details of this concern which you yourselves can handle better in your study sessions. I can only share with you my conviction which issues from direct experience and observation that one essential consideration which should not escape notice in a meeting such as this is not so much the matter of controlling or limiting population which, I admit, is important; it is more a question of how to bring about an appreciation of our individual and corporate responsibility to help make possible a quality of living which would make of every human being--whether he be in a humble nipa hut in a remote barrio or the one who basks in a mansion with all the affluence of modern living--an image of God, as originally he was intended to be.

I submit to you that this is a matter of responsibility which is divinely ordained and socially desirable. A good measure of it falls upon the shoulders of all of us, particu-

larly those who are parents. This every Filipino parent must be helped to understand: that to bring every single human life into this already sordid world of ours is more than a matter of biological procreation or of personal pleasure. It demands an exacting responsibility to make it possible for that life to be at its best and to bear eloquent testimony to the essential goodness of the Creator of mankind.

What better motivation than this can there be for family planning? Within its context, spacing of births, limiting family size, and planning for happy and healthy homes, all take on a new meaning and a re-oriented sense of direction. It makes for men and women who are healthy in body, mind, and soul.

In closing, I would like to quote a poem written long ago by Edwin Markham which is as follows:

We are all blind until we see
That in the human plan
Nothing is worth the making
If it does not make the man.

Why build these cities glorious
If man unbuilded goes?
In vain we build the work, unless
The builder also grows.

And, if I may add, we should let it be a fitting conclusion of our observance of National Family Week to resolve that henceforth, we are to build and strengthen our Filipino homes by building happy, healthy, and useful lives. This is what I call responsible parenthood. There is no greater responsibility. And to hasten education for responsible parenthood let us organize a group in every province and town and later barrio to carry on the task for us. Let us get government recognition of the importance of our work. Let us get all other organizations to cooperate.

THE ROLE OF CIVIC AND VOLUNTEER WORKERS IN FAMILY PLANNING*

Louise G. Orendain

If the ten Datus of Borneo who settled in our islands during the mid-13th century were alive today, they would never be able to comprehend the fact that in this dazzling age of atomic wonder and discovery, their fellowmen are still debating the issue of population control -- a problem which the brave Datus themselves settled with bold and simple audacity by laws which they proclaimed in 1250 A.D.

Inscribed with steel on wood and bamboo tablets, the sixth and seventh articles of the Code of Sumakuel commanded:

> "Six. Marriage to as many as three women may be permitted in the beginning in order to increase the population. Afterwards only those who can support many wives and children may be permitted more than one wife.
>
> "Seven. Poor persons shall not have more than two children. Children of the poor in excess of two in number shall be killed or thrown into swift rivers."

Some historians assert that parents in the society of Sumakuel strove hard to support their offspring in order to avoid the imminent danger of losing them in accordance with their rigid laws.

But the stark simplicity of life during primitive ages has grown more and more complicated following the advent of Christianity in this part of the world. The Borneans'

*Speech of Louise G. Orendain, Councilor, Quezon City during the First Annual Meeting of the Family Planning Association of the Philippines, Inc., on December 11, 1965.

worship of their Deity, Bulalakao, was displaced by the new creed; sacrifice to obtain fertility from the God-spirit was replaced by pilgrimages to the shrine of Santa Clara in Obando, Bulacan and other sites dedicated to the Catholic Patroness of fertility. And across the centuries, the race of mankind has increased geometrically in Malthusian style, foisting upon us today population magnitude in explosion proportions.

While it took more than 800,000 years for humanity to achieve its current population of approximately 3.3 billion, the second 3 billion will be added in only 40 more years--a period of time which is only 1/20,000th of the past.

The fact of our runaway populations stresses the need for remedial action. And it will be our task today to determine the role of civic and volunteer workers in the family planning program which seeks positive solutions.

Let us begin by analyzing some of the basic problems on which volunteers must focus their objectives.

The Need for an Accurately Informed Public

Foremost among these problems is the need to create a concerned, objective and accurately informed public opinion. This information must be brought to bear upon highly literate individuals who are in a position to influence public policy or initiate action; that is, public officials, civic and religious leaders, editors and newsmen. The fact is that while a great number are concerned about the population problem with its attendant evils, many more are misinformed, half-informed or uninformed. And pitiably few know what are the goals, the scope and the limitations of sound family planning programs. But the greatest challenge to the volunteer is to provide accurate information in the face of biased or prejudiced generalities.

A U. S. State Department policy paper from William Nunley in 1961 stated that his Government was legitimately concerned with population problems primarily as they relate to economic and social development, but that it found itself "upon a small island of miscellaneous truths sur-

rounded by a vast ocean of ignorance and uncertainty." Mr. Nunley declared: "More than anything else at this moment, we need additional knowledge.... We need technological research, physiological research, social research, economic research and political research. We need to know more...."

Also confronting the family planning volunteers is the anxiety of well-meaning Catholics who fail to realize that their non-Catholic neighbors are not bound by Roman Catholic dogma; and that non-Catholics are as much entitled as Catholics are to the untrammeled dictates of their own conscience. While the wiser course at all times for volunteers is to steer clear of controversy, there are now many points of agreement linking all Christian beliefs, whether Roman Catholic or Protestant. These areas of agreement are the best means for establishing the democratic bases for cooperation.

The Roman Catholic Church does not preach unrestricted fertility. Monsignor John A. Goodwine in the official bulletin of the National Catholic Welfare Conference's Family Life Bureau exhorts his colleagues to "acknowledge that the marriage act is a human act and, as such, is to be exercised in a reasonable manner. If cogent reasons indicate a limitation of family size, there should be no difficulty in admitting that the avoidance of pregnancy would be within the bounds of reason and morality." [1]

Articles from the Code of Canon Law

"Canon 1013. The primary end of marriage is the procreation and education of children; its secondary end is mutual help and the allaying of concupiscence.

"Canon 1113. Parents are bound by a most serious obligation to provide to the best of their power for the religious and moral as well as for the physical and civil edu-

[1]Quoted from "The Time Has Come" by Dr. John Rock, M.D. (N.Y. 1963).

cation of their children, and also to provide for their temporal welfare."

Other Areas of Agreement[2]

"In its physical purpose, marriage offers a means to marital companionship for the expression of love and also for the majority to fulfill their union in procreation (Gen. 1:28).

"Parenthood has its obligation as well as its rich joys. It involves participation in God's continuing creative work. The couple that uses God-given powers of procreation to bring a child into the world has a duty to provide that child with love and nurture, and to bring him up in the 'discipline and instruction of the Lord' (Eph. 6:4). Parents have an obligation to provide in the home a warm and secure environment for their children, and to fit them for useful vocations in society. The family is the basic, nuclear community of society; and the safe-guarding and advancement of its welfare is a fundamental Christian social concern.

"Parents in considering the question of an additional child need to reckon with the claims of existing children, as well as the claims of the unborn child to love and training for the world of today. The right of the future child to health is another factor, so that any clear medical and eugenic indications should be weighed. Likewise, the right of the mother-wife to physical and mental health presents a claim to be taken into account. The ecoromic situation of the family, and the burdens placed upon the husband as wage-earner, should be considered.

"All these considerations enter into the concept of responsible parenthood.

"As Christians, our concern for responsible parenthood in relation to population and development is a concern for

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[2]East Asia Christian Conference, Bangkok, Thailand, 1964.

family welfare -- the relations between husbands and wives, between parents and children in the development of full human personality, the health and status of women, the freedom of man to use his highest powers and the educational opportunities for their children.

"While our primary concern is with the family... Christians also need to be concerned about the wider population problem, for its own sake and because the consequences of rapid population growth beset the family from every side."

A professor in sociology at Fordham University, Father William J. Gibbons, S.J., said that overemphasis on procreation in Catholic textbooks have led some Catholics to try to rear more children than they can. "The education and welfare of children are equally important as the primary end of marriage," he declared. "You have to take into account the physiological and mental health of the parents, their economic conditions and the society in which they live."

Methodical Compilation of Case Histories and Research Materials

The dearth of research material on family planning referrals must be filled by a systematic compilation of case histories by cooperating agencies and volunteers. Research information is a prerequisite to long-term plans, programs and policies. Through the Family Planning Association of the Philippines the collection of research data should be centralized and coordinated. Only in this manner can vital information be made available to social workers, doctors, religious groups and lay leaders in search of the truth. Efforts in this direction have already been started by the FPAP this year.

Urging the expansion of research, Cardinal Suenens of Belgium and Auxiliary Bishop to the First Catholic World Health Congress in 1958 said: "There are certain conjugal problems...which the priest cannot resolve.... We have no right to demand that men obey a law without at the same time doing all within our power to make obedience possi-

ble." He adds the prayer that Catholics in search of a solution will apply themselves "because of the urgency of the situation to solve these problems so vital to the moral health of our homes." He expressed the hope that the faculties of medicine of all Catholic universities would make an effort, "in the interests of the common good, to push forward with their research."

During the 28th National Catholic Family Life Convention in St. Louis, Father John C. Knott, Director of the Family Life Bureau of the National Catholic Welfare Conference said: "One thing that characterizes the science of modern demography is that many more questions are being asked than there are answers available.... We, as Catholics, should support and encourage objective research, whether through government or private agencies, in those areas intimately affecting family life in this country and throughout the world."

Acknowledging the contributions which volunteer groups can make, John D. Rockefeller III before the U. N. Food and Agriculture Organization (FAO) said that private groups can help much in the way of information, specialized knowledge and trainer personnel. "But population problems are so great, so important so ramified and often so immediate that only government supported and inspired by private initiative, can attack them on the scale required." And he concluded: "To my mind population growth is second only to control of atomic weapons as the paramount problem of our day."

Competent Referral Services--the Need of the Hour

There is need for competent and speedy referral services by trained volunteers. In the Quezon City and Greater Manila area, a terribly high birth rate among the most indigent families compounds the other evils brought about by poverty. Crime, unsanitary environment, tuberculosis and other diseases abound, underscoring the need for civic workers, family planning volunteers and social workers to join hands in a dynamic program of action.

To avoid duplication there is need for a delimitation of work where several workers are already in the field. Moreover, the conscientious volunteer must constantly remind herself that she is merely performing the task of a knowledgeable liaison officer between the person in need and the agency providing the service.

Not only the volunteer on the field, but also the volunteer practitioner in family planning must have the honesty and open-mindedness to spot a case which needs referral to some other agency than himself. For example, in the course of a thorough clinical examination a patient at the family planning center of the U. S. T. may warrant methods other than the rhythm method. If the patient be a non-Catholic, I feel sure that the center would not hesitate to refer her to St. Luke's or perhaps to the Blessed Heart Hospital of Dr. Lim.

To expedite assistance, workers should provide themselves with a handy directory of all organizations and professional practitioners providing not only family planning but also other aspects of related social work, as the Philippine Rural Reconstruction Movement (PRRM), the Social Welfare Administration, the Family Workshop and other agencies. They should also seek full advantage of the services of government which promote food production and cottage industries.

The Community Chest can provide a directory of 33 welfare agencies sponsored by that organization. Referrals to these institutions should be expedited. But careful, deliberative study must precede referrals to agencies providing clinical and medical assistance. Above all, civic and volunteer workers have the obligation to respect the religious creed and the individual conscience of their clients.

St. Luke's Hospital, the Mary Johnston Hospital, the Blessed Heart Hospital and the Emmanuel Cooperative Hospital have been providing complete family planning services for many years. The Maternal and Child Health Centers of Manila are now also providing family planning

services including contraceptive devices or pills when warranted.

The Hidden Famine

Economists continue to claim that the Philippines can support a population three times its present size. No less than a revolution of production could make this come true in the foreseeable future. The fact is that untold millions of our people today are suffering from hunger and want. Almost every general hospital and health center in the Greater Manila area and many all over the country record the fact of a consistently rising number of cases of diseases caused or aggravated by malnutrition.

Unless production can zoom at a geometric rate, no public health program in the world can meet the reality of sustained, gnawing hunger and the threat of slow death by starvation. Hunger and vitamin deficiency are in fact so widespread among our slum and squatter areas that the hidden monster has assumed famine proportions within the last four or five years.

UNICEF research has established three fundamental facts: (1) Pre-school malnutrition is basically responsible for the early deaths of millions of children; (2) Of those it does not kill, pre-school malnutrition permanently impairs physical growth and probably causes irreversible mental and emotional damage; and (3) Pre-school malnutrition is a serious deterrent to progress in developing countries. It weakens the productive capacities of adults surviving from the irreparable damages incurred early in childhood. In addition to sufficient calories, an adequate diet must provide minimum amounts of at least 43 specific chemical substances identified as amino acids (the constituents of proteins), vitamins, mineral elements, and certain fatty acids. A shortage of any of these over a long enough period will induce specific starvation symptoms usually described as "malnutrition." It is when the child is completely weaned, some time between one and three years, that the most dangerous period of his life begins. Malnutrition makes the children unable to cope with diseases arising from unsanitary practices. For the child of the

tropics and subtropics will generally have to survive on a diet high in starches but low in proteins, vitamins, and certain essential elements.

Not until after World War II was it generally agreed that a number of serious disturbances found among young children in Asia, Africa, Middle and South America were variants of the same disease and that a diet lacking in high-quality protein was its primary cause. This disease is now commonly called "kwashiorkor."

Other conditions arising from malnutrition are Vitamin A deficiency which can cause severe damage to the eyes or even permanent blindness; infantile beri-beri caused by Vitamin B-1 deficiency causing death in young children; anemia (iron deficiency) and endemic goiter (iodine deficiency) caused by mineral deficiencies.

A recent U. N. Report on the World Social Situation indicates that most of the less developed countries are below par in terms of elementary standards of calorie consumption. In varying degrees, the diet of the underdeveloped world is at present tragically inadequate both in regard to quantity and quality.

Rampant population growth actually obstructs efforts to increase food productions because of the pressure of people on land which might otherwise be tirned to agricultural use. Moreover, the U. N. experts add that high birth rates of the underdeveloped countries create a heavy load of dependent children for the working population which "puts the workers at an added disadvantage in their efforts to save." They assert that it complicates the problem of providing children with the education essential for social and economic advancement in the long run, and "accelerating population growth can aggravate the problem of capital shortage which is one of the most important obstacles to the economic development of all underdeveloped countries."

Advancing the Frontiers of Family Planning

Fagley in his book The Population Explosion and Christian Responsibility declares: "...the probable consequen-

ces of the present population explosion... so largely ignored in public discussions of world affairs, are grave in the extreme. No comparable threat to the stability, and hence to the peace, of this atomic age has been given so little attention in the counsels of governments.... But the stark and stubborn facts refuse to be ignored, and the time when it was possible to hide in the sand rapidly runs out. The harsh time of public reckoning is close at hand."

Nothing less than the magnitude and intensity of a revolution in the production of foods could remedy this crisis in the immediate future. Banish the illusion of solving it in two or three years!

Dr. Florio of the Agency for International Development in a recent report stated that merely to maintain present conditions at a status quo in the face of a 3 percent population growth requires the saving and putting into productive use of at least 10 percent of income. In other words, it would take ₱5,000 in capital to create a new job in the Philippines. If about 400,000 new jobs need to be created annually to meet the new entrants into the labor force, we must create ₱2 billion of capital each year to make room for new employees.

In the face of our growing national deficit, there is nowhere we could turn to for the kind of capital that would be required to produce in revolutionary scale.

"We face a crisis that is new in history. We would do well to face it with a cleanliness of imagination, in the realization that internecine strife; beyond some inevitable human measure, is a luxury we can no longer afford."[1]

Christian humanitarianism dictates that the way to check population must be advanced rather than abated. We cannot save life only to cut that life short by keeping it in ignorance of what the past has taught us.

[1] Father John Courtney Murray in Religion in America.

THE ROLE OF TEACHERS AND HEALTH EDUCATORS IN FAMILY PLANNING*

Trinidad A. Gomez, M. D.

A recent World Health Organization press release tells us that the world population today is increasing at a rate that will double the number in 40 years. According to projections made recently by the United Nations, world population will rise to about 6,000 million by the year 2000.

As a result of rapidly declining death rates in most parts of the world, while birth rates in many areas remain high, we are now adding some 60 million persons annually to the world population.

In the Philippines alone, one million new individuals are born every year and this means added responsibilities for providing food, housing, education and medical care, to name only a few.

The growing awareness today of the problem of population explosion and its implications to public health and allied programs has resulted in an unusual interest in family planning.

You will agree with me when I say that the health and happiness of families all over the world depend largely on the number of children a family has. Some parents want as many babies as possible. In other families, health must have the first consideration. Most parents feel they should limit the number of new babies they have, so there will be

*Speech of Dr. Trinidad Gomez, Chief, Office of Health Education and Personnel Training, Department of Health, during the First Annual Meeting of the Family Planning Association of the Philippines, Inc., December 11, 1965. Dr. Gomez is 1965 President, Philippine Medical Women's Association.

enough food for the children already born, and so that they can give each child adequate care.

Family planning as an approach to population problems simply stated aims to:

1. Inform the public about the world population crises.

2. Guide parents to space their babies.

3. Help childless couples to have longed-for babies.

4. Help young couples to prepare for marriage.

5. Promote continuous research to find better and more acceptable birth control methods and approaches to problems of infertility.

Family planning is a public responsibility that has to be shared. It can never be the sole responsibility of any single agency nor a single individual. It is an activity that lends itself to community cooperation and participation.

Being a community endeavor, the role of teachers and health educators in this important undertaking cannot be overemphasized.

Teachers and health educators have to their advantage their strategic positions as agents of change and influence in a community. The teachers, through their close contacts with parents of school children, have since time immemorial contributed immeasurably to activities aimed at improving community life. They have served as models for healthful living and have influenced many to follow their examples. In view of these and the confidence that parents have in them as a result of their close associations and contacts, often parents will ask their help in solving their most intimate problems. This then provides a golden opportunity to share their knowledge on the subject of responsible parenthood.

Health educators, like teachers, are potential allies in the worthy task of promoting consciousness about population problems and what can be done about them.

The fact that the health educator is a staff member of the local health agency with access to information pertaining to community health needs including those related to population makes him an invaluable resource person, especially in regard to socio-cultural characteristics of people in the community. Knowledge of what people believe in and what would be acceptable to them is important in determining the approaches that will be employed in a family planning procedure.

The nature of her work demands that the health educator be familiar with the other health related voluntary and official organizations in his community and has involved them in programs of the health department. The participation of these resources in the community can be a great value in both planning and implementation of programs aimed at Family Planning.

As a coordinator of activities of the health department with those of other government and voluntary agencies, the health educator can serve as a liaison between the health department, the schools and other agencies in promoting a close relationship in matters affecting health programs. She can provide audio-visual materials that the program may also help the teachers in developing learning experiences for parents wherein they may get direct information about ways and means of limiting their children or having children (depending on their individual problems) from an expert along this line.

To summarize, let me recount that population explosion is a world problem which has resulted in a growing awareness of the importance of family planning as an approach to the problem.

Family planning is a cooperative effort and as such requires the participation of various agencies working in communities as well as the people themselves.

Being recognized as people who assume leadership roles in community activities, teachers and health educators can contribute much to better acceptance of the family planning program by the people for whom it is intended.

RURAL FAMILY PLANNING: A SEARCH FOR AN APPROACH

Juan M. Flavier, M. D.
Field Deputy Director, Philippine Rural Reconstruction Movement

This chapter recounts the personal experiences of the author of a period of three years (1961-1964) in several Philippine barrios assisted by the Philippine Rural Reconstruction Movement, in search for an approach to the problem of population explosion. Actually, the study was not deliberately prepared or planned. It started as an ordinary activity called mother's classes--conducted by the Department of Health of PRRM--in which a group of barrio women had been organized to study better pre-natal, natal, and post-natal care.

I

The reason for the emphasis on mother's classes and this type of educational curriculum is manifold. First: during daytime the menfolk are generally out of the home tilling in the field and only the women are to be found. Second: the women are quite an authority in the barrio (whether some men are willing to admit this or not) since they have various ways of getting what they want; if the housewife is convinced of the benefits of a certain practice, there is a good chance that such a program could be implemented--even if only as a result of her nagging. Third: in the context of the Philippine barrio, the one responsible for the home and the management of the household is the wife and therefore she has the keys to home development.

Why mother's classes are popular and have a fairly high chance of being accepted is one question to which poor farmers attach a very important value (perhaps, as natural outcome of their poverty and destitute way of living)--namely, the care of their children. The only hope of a better life for a farmer rests in his children, who may one day become rich and offer the parents a more comfortable life. As a means to preserve these hopes, aspirations,

and meaning of continuing life itself, mother's classes are accepted when introduced and organized in the rural areas.

Usually, the study would begin with baby care and later, at the behest of the women, branch out into better farming, construction of toilets, need for immunization, organization of barrio council, literacy work, etc. In this sense mother's classes are leverage to pry open other avenues.

It was also in like manner that our awareness came as a result of the tremendous outbreak of population in the barrio. Ordinarily, lecture demonstrations are conducted and, at the end, the standard system to allow anyone to ask any question is employed. Our expectation is generally that we would be asked regarding better and bigger babies but, to our amazement, the first question concerned the need for family planning.

"Mayroon po ba kayong katanungan?" (Do you have any question?)

Some prodding, then out of the silence a woman reluctantly stood up, after some pushing and coaching behind, "Ang problema ko po ay ang asawa kong si Julian. Titigan lang ako ay nakabubuo na kami." (My problem is my husband Julian. He stares at me and I am big with child.)

At this point, let me mention that this kind of talking is typical among barrio people; a system in which they do not say directly what they mean and go at great length around the issue. I have been given the impression that this is related to the overly respectful manner the barrio people talk; it's like passing through the middle of the house where people are talking; one must walk around instead of walking direct. (Even in the use of pronouns, while speaking, they use the third person sila (or he) to mean ikaw (you--direct). Or probably, this is related to the basic shyness of barrio women. Anyway, in the beginning, my reaction was to take the question lightly as I was trained in medical school without thought of population problem. I was given the deep impression that one does not talk about, nor even mention, birth control in the city, much less in

the barrios. Hence, it is natural for a barrio wife to ask: "Ang problema ko po ay si Ambo. Hakbangan lang ako ay nakabubuo na kami." (Doctor, my problem is my husband Ambo. He walks across me and I am big with child.) An answer usually is: "Siguro huminto sa gitna ang inyong si Ambo kaya nakabuo." (Maybe your Ambo stopped in the middle, that's why you became big with child.) And we would all laugh.

What distressed me is, in time, I noticed the frequency with which the same kind of question recurs. A day came when, almost 8 times out of 10 classes, questions on birth control were asked and generally a plea for remedy. It was ironic to think that we were not supposed to mention birth control, believing that our people are not ready, and yet here they were asking me for help; this was of course a complete reversal of what I was made to believe earlier.

I found myself groping for a correct answer. What do we tell this type of women? How do we do it within a rural barrio setting?

II

To begin with, I went to various agencies and, in 1961, I could not quite locate any group that could tell me anything. I was not probable too thorough or, maybe, because of the bad climate for the subject matter those engaged in it would not want to come out openly. I did come across a few and were told about work going on, but they were essentially statistical studies; what interested me more was what had been done practically on family planning in the rural areas. After all, 80 percent of our people live there and, for another, the birth rate in the barrios is much higher than in the urbar centers. For lack of useful materials, I went back to the medical textbooks and the literature available to find out how birth control was done in other places and other countries.

That 82.4 percent of our people are Catholics made abortion quite anathems. Even with the added advantage of other contraceptive devices, we chose the rhythm method for our studies; an analysis was made and an elaborate

plan to introduce it. Since mother's classes were key groups in the barrios, we decided to use them as sounding boards for our innovation. We selected two barrios of comparable character to eliminate the intrusion of complex variables. To prevent the factor of previous educational campaigns, we selected two barrios that were to be assisted for the first time--thus adhering to the nature and requirements of a controlled study. Mother's classes were then organized, with 28 members in one and 26 in the other. Both were to be handled in the standard procedure implemented by the PRRM. The first was designated as the study barrio and the second, the control barrio. The study barrio would be handled as a mother's class and, in addition, would receive an intensive course on the rhythm method of birth control, while the control barrio would get only the usual maternal and child care kits, and were to be used as subjects against which comparisons would be undertaken in terms of population growth.

III

It was with plenty of confidence, and some amount of flair and audacity, that I stood up one afternoon to meet for the first time the mother's class of the study barrio. I literally expected them to shout with joy because, from my previous experience in other barrios, I was overly optimistic about their need for it. But, instead, the group suddenly became silent, looked at each other's face as though I had just spouted a sacrilegious statement; I sensed a funny feeling of being unwanted--cold all over, in spite of the hot afternoon. The women waited for each other to say something, then giggled. One took courage (a middle-aged woman) to stand up and asked:

"Puwede po bang malaman kung gaano ang idad ninyo?" (May we know, please, how old you are?)

I answered, still bewildered: "Eh, beinte sais na po sa susunod na buwan." (Well, I will be 26 years old next month.)

"Marunong po ba kayong gumawa ng bata?" (Do you know how to make a baby?)

Before I could answer, there was a howl of laughter; I stood there uneasy and unsure of myself, having met the most unexpected reception.

I realized, in spite all the preparations I made--on the technical side of the subject especially--that I forgot the human factor, the barrio setting and the mores involved--conception and pregnancy are subjects that are intimate and personal; you do not discuss it with some stranger who arrives there for the first time, without rapport or previous personal contact. Yet I had the audacity to stand up and pry into the most hidden recess of their life; on one thing associated with oldsters and their dads. In the barrio, only those that are old enough, with probably streaks of gray hair, have the right and privilege to talk on personal topics, like pregnancy. In self-defense, I converted the day into the usual gist of starting with topics on first-aid, environmental sanitation, and home remedies, etcetera.

That evening, while I was sitted down, thumbing over my approach, the conclusion dawned easily on me that I had gone into a group to which I had no anchor and to which I was not popular. I was everything except the authority I should have been.

I decided to change my tactics by inviting for one week the president of the Women Association to an arm-chair lecture, at the PRRM training center in San Leonardo, Nueva Ecija, on the rhythm cycle. Afterwards, to my extreme excitement (I concealed outward), she mentioned her desire to teach the mother's class herself what I had just taught her, beginning from the concept of human anatomy to the rhythm method. This event is what I had been long expecting and intending to pursue, to use her as a wedge to penetrate the numbed tabula rasa, if there is such any, of the organizational circle; not only that, I thought, I was proliferating myself in a geometrical system where an auxiliary family planning promoter would be serving while I am away. Mrs. Cruz went back to the barrio, armed and ready with all the information to spread the word.

It did not turn out as simple as I wanted it. It was well and good that I had taught somebody, whether the method was effective or not was something else. I had to go and find out for myself to be really able to ascertain the situation: it was a basic feature to gather the facts, to make the necessary comparisons.

The factor of my age and the disconcerting reality that pregnancy is a private matter remained buried deep in my subconscious. To extract the information (how to document those who were pregnant), from one woman to another, I regarded most important. If at all, facts were given grudgingly and, I suspect, inaccurately many times. I would start by talking about the weather, linking this with the farm, connecting this with the children and, later, stitching it to pregnancy--the topic is back to the weather, without knowing really how, whence I stumbled.

For a whole month a painstaking effort was made to collate the facts. Different methodologies were employed, resorting to the use of the officers of the Women's Club. I could not dissociate myself from the study--in the control barrio I had no promoter to rely on--because of the need and necessity of getting fresh their testimonies and reactions. It was fundamental that I was included somehow, but my very presence (probably because I was only 25 years old, male, going to 26, that I am barely five feet tall and, hence, on barrio standards only a little boy) made controlled observations more difficult.

After one month we had a basic data to start with, but I was not all happy about the manner with which we compiled the information. At the rate we were going on our data, our questions turned out into something they would rather, in their answers, be secretive about.

V

While I was in the barrio, a woman came to consult me about her menstrual problems. I was rather fascinated by the detachment and exhuberance with which she accepted

my questions, telling me facts as though she was talking about an entity outside herself.

Soon, conversations and conscious observations, apprehended in the course of investigation, revealed that majority of the women were rather curious about their menstrual cycle--its characteristics, color frequency, profuseness, and the intermittence of the flow, which they equated to their physical vitality and blood potentialities.

Not only that, they have certain beliefs--varying from prohibition of getting wet during the actual flow (some cocksurely prohibiting taking a bath to inhibitions regarding taking anything sour, as if these would have disastrous effects on their cycles.

These impressions became doubly significant when we found out later that women were reluctant to talk about pregnancy but open and frank about menstruation--much more so when it is treated as a physiological matter to be threshed out with the doctor. So, instead of talking and asking questions about pregnancy around the village, I discovered that by substituting menstruation I obtained the same results--minus, of course, the prudishness and morbidity priorly included.

I had the intuition that this hesitance to divulge their maternity state is closely associated with the sense of guilt derived from having an 'unwanted' baby. This is very common among parents with already sprawling families. More than that, the women feel that when one publicizes or talks about her maternity secrets, she in effect already admits having done something wrong (the nature of the act is something very very hidden and personal) indubitably with her husband.

Thus, our documentation and fact-gathering problem was solved by the menstrual approach. As it developed, a point of camaraderie was reached in which I could talk, without I or they feeling any embarrassment, about their menstrual problems through their windows, while passing by (one woman actually greeted me one morning through her door with an amusing answer): "Regular na ngayon,

doctor." (My menstruation is regular now, doctor.)

VI

It was with some ease, among ourselves, that in the first and second month nobody was pregnant in the study barrio; the following month, no one was still pregnant. Indeed, it was a great reason for our all-round jubilation for, in the control barrio, one had become definitely pregnant and another was suspected to be on the way.

In the midst of our euphoria we conducted our assessment of the fifth month and found out, painfully to our dismay, that in the study barrio one had become suddenly pregnant--in the person of no less than Mrs. Cruz. I was of course very disturbed and disappointed as a result.

A week after I decided to pick up the broken fragments of my pride, I went to the barrio to call on her, with very little feeling. "Bakit mo ginawa ito sa akin?" "Why did you do this to me?) It was more an expression of hurt pride than a censure; for looking back, what disturbed me was the implication of her pregnancy. I would not have minded very much if all the others whom Mrs. Cruz taught got pregnant, but certainly not her whom I--the supposed expert--had taught personally, laboriously, and painstakingly.

We sat down and asked her for an explanation. She was rather hesitant to offer me the details. I reasoned out we had to learn from her mistakes so others could be warned. She said, finally: "You see Doctor my husband is a photographer; he stays in town from Monday to Saturday and comes home to the barrio on Sunday and back to the town the following day. Well, one night the moon was round and yellow--he was feeling well, he had earned a lot of money from graduation pictures--he stroke me by the elbow and seven years of marriage conveyed the message very distinctly to me."

She stopped for a moment, deciding as though whether to continue or not further as the details were getting more personal: "You see, that Sunday was a danger day; we

thought that just a difference of one day would not matter much. After all, what is one day between friends."

I prodded on with the remark, "Look, Mrs. Cruz, we have failed and the only thing to do now is to learn from our mistakes. You are the leader of the group, I believe it our duty to tell them the lessons we have learned. I know it is painful, but I think we owe that much to them as leaders."

She looked at me as though in a last attempt to evade the issue; the appeal on her status as a leader was something she could not swallow.

Finally, she continued. "As I started to tell you, my husband came home feeling very light, and that evening he nudged me at the elbow..." She stopped; I did not say anything. ..."Kaya ang isinagot ko sa aking asawa--'Pepe, bawal ngayon." (So I answered my husband--You know, it is prohibited today.)

VII

The above incident has to be amplified further to realize its significance. Conversations and investigations in the barrio revealed the fact that, as a general rule, young women are taught never to say yes on sex relationship to anyone before marriage. Conversely, I found out that young women about to be married are advised by their mothers never to say no to their husbands after marriage, because procreation is considered a major factor for prolonging the state of matrimony. With this, it is understandable to conclude that, on matters pertaining sexual promiscuity, husbands in the barrio are never given no or negative answers by their wives.

For Mrs. Cruz, this was probably the first time Pepe was refused. And so it was only natural that he wanted an explanation. "Bakit bawal?" (Why prohibited?) "Sapagkat sabi ni Dr. Flavier, eh." (Because Dr. Flavier said so.)

Mrs. Cruz committed (in the sense that I and her husband had never been introduced to each other) a second

mistake--or had I?--and therefore I was totally, by all odds, an unknown stranger to him. Moreover, it appeared to him as th gh I had intruded into their private lives--something grossly unthinkable about since sex relationship is supposed to be a personal and very intimate matter. It is demonstrated aptly, for instance, in the husband's retort to Mrs. Cruz: "Sino ba ang Dr. Flavier na iyan? Nakikisosyo ba siya sa atin?" (Who is that Dr. Flavier? And is he sharing with us?)

Her husband's pride was hurt and a quarrel ensued between them. Mrs. Cruz was of course able to justify her reluctance and what the situation meant for both of them, besides further erasing any doubt about their compatibility, only by acceding to her husband's will--thus resulting to the first pregnancy of the study barrio ever recorded.

Gradually as she recounted the details, I began to realize, if little by little, how narrow and inconsiderate my approach had been. Not only had I been concentrating wholly on the women and forgetting the men, at that, but also forgetting that, after all, it takes two--or a married couple--to solve the problem. To top it all, I was concentrating my efforts on the more mundanely passive specie, commonly the female. I was forgetting her aggressive counterpart, normally the male.

After some hard moment of vacillation, I decided sociologically to recast my approach--from a singular feminine group--to a combined class, specifically married, men and women. Theoretically this would achieve closer and more immediate results since the pair mutually would synchronize both their efforts to make the rhythm method effective. Fortunately, while we were in the process of organizing this group study, many of the barrio people began to know me rather well and were quite prepared openly to discuss the subject at hand.

VIII

Ten pairs signed up for the class. We met at the barrio hall to prevent any of the younger children (or other members of the household) from hearing the intimate de-

tails of our discussions. We had hoped earlier that the combined outlook emanating from both sides would act as a reinforcing factor to the aura and effectivity of the gathering--and, unprecedentedly enough, it was true.

Before talking any further, however, let me make mention of another human factor involved in the picture which, at least sufficiently, we had not reckoned with. Social dealings in the barrio are viewed--or rather interpreted to be--as personal in nature. Hence, when members of the control barrio were grouped together, they turned the class more into a social 'gathering' than an academic colloquim conducive to learning. I am not quite certain if it was that my method for conducting the study was reliable, but one thing came out rather prominently well. I noticed, for instance, in these 'gatherings' that the threshold of humor possessed by the group was very low. Their amusements were confined, albeit protractedly, only to those things bordering the funny and the unusual, and before all these subside some remarks hurled from one member to another would elicit further hilarity and jocoseness.

True, the atmosphere was more than healthy and exhilarating; there was ease and entertainment which, unfortunately, they subverted into joke, so ironic nobody was putting much serious notice of the facts any more. It was a tragedy compounded by a great portion of the time wasted on an excursion to the fringes of the main lessons.

Subsequent studies were therefore made separate for the men and another purely for the women; we found out there was less tendency to show off and to get even on the part of the male sex when his female counterpart (the object to whom the story was told would retaliate briskly to get even with his antagonist, and one can readily imagine, in such bizarre occasion as this, what all the chain reaction of laughters would produce) is not around.

IX

At this point in our investigation we found out that it was one thing to know the rhythm method and quite another

to apply it systematically, especially the problem of counting and keeping tract of both periods.

While the Ogino Method is basically sound for the barrio, we found out that their problem rests in determining whether the day was safe or dangerous, based from the actual previous record of counting. The thermometer system is out of the question since the barrio level of education was not commensurate with the technical phase it demanded. The use of graphs would be only too laborious and complicated. It appeared that the need was for a simple reckoning system which every barrio nipa hut had, and a method workable only once for the whole month, yet useful for the whole cycle. A deliberate effort was made to search for such multi-purpose requirements.

First: we considered the cyclical appearance of the moon and the possibility of tying-up plants with the time of their flowering. But neither seemed to fulfill the necessary criteria. Secondly: we remembered that every home had a common article in the barrio. In the poverty and bareness of the nipa huts the presence and posting of calendars have become standard and universal, not so much for keeping tract of days but, more so, for decoration. No wonder, the most popular give-away present from the town store is the calendar which could be used by us to keep records of the birth control cycle.

X

A study of the Ogino System revealed the need for establishing an average cycle of nine months (minimum) to twelve months. This meant that, to use the rhythm accurately, one had to establish a cyclical datum of one year. The fact, however, is that the duration is too long to be practical for the farmers working the fields. A simpler system had to be devised; a system that would not only be simple but would also be profitable for most of the women-farmers.

For trial purposes I decided to work on the basis of the textbook average cycle of 28 days, and following this, I adopted from the Ogino System a method which I called the

7-22 system.

Even at this point alone, however, a very human factor crept in. Many barrio people are very fond of gambling, like playing the game of dice--7-11.

The 7-22 system is nothing more than the use of a calendar, crossing out the first seven days of the month with a pencil, leaving blank the 8th day up to the 21st day of the cycle. Then starting from the 22nd day, up to the end of the calendar, you fill them up with crosses--hence the 7-22 system.

The practicality of this method lies in the fact that, at the first day of the menstrual flow, one can easily prepare the chart in one sitting. For another, the chart is good for the whole month or for the whole cycle, and one did not have to keep tract of the daily status, since that could be inferred at a glance on the calendar: an X would simply indicate a safe period and a blank sign its opposite. One can see that the first part of the cycle are crossed (1-7), and also the end part of the cycle (22 and on), while the middle portion (8-21) are blank or fertile periods.

A big disadvantage, of course, is the fact that this system generalize the situation, regardless of the length of the cycle. It is easy to appreciate that the 7-22 system would be inapplicable for women with very short or very long cycles. However, I have to use a simple general method applicable to the barrio people. Besides, I was interested in knowing whether this system was right or wrong.

XI

Before I could establish the reliability of the days indicated in the 7-22 system, we were confronted with another factor. It must be stated that, in the choice of subjects for the trial, we had to select volunteers (we cannot make a random sampling of participants) since many would be too bashful to raise their hands. We had to select women who were already in their menstrual cycle since the rhythm period hinges heavily on it.

Because of the nature of the volunteers have very big families to support--that is, prior to this experiment, since they were the ones strongly motivated to birth control. Their children of school age would look at the calendar and start wondering why there are blank days between heavily marked days on the calendar. When a child puts marks on the blank days, the whole system fails to function; the previous marks will blend with his succeeding set of markings and the mother, reckoning with it, is lost as to when she first started her menstruation. I found that several women lost tract of the count due to these incidents.

I have had occasions to sit down and wonder what goads a boy to put these marks, and I can only have some guesses. I remember, when I was a little boy, my father used to put circles on the calendar around holidays on which my father would not have to report for work. I remember I used to have the same compulsions to add more circles on the unmarked days. I suspect, that to a little boy, the temptation to add more marks to complete the page is even more strong, because, at first glance, a 7-22 calendar would present an unfinished job.

Anyway, we had to improve our method of recording to offset this type of difficulty. We decided that if the reliability is not good, and if it is compounded by human factors; then it is high time for us to look for another approach.

XII

A deliberate search was again made to get a system of counting that would fill in the needs of the barrio people. Quite by accident, I had occasion to be with friends in the city and saw them play a game of 'pool'. They were using a system of scoring based on plastic beads, tied on a string and suspended overhead; they would move to the left the number of beads corresponding to the scored made on the particular stroke. Suddenly, it dawn on me that a similar method could be used for keeping tract of the fertile and infertile periods of the sex cycle. So I ran to the barrios and started studying the feasibility of this method.

First, we had to decide whether to manufacture these beads out of plastic or to make them out of wood, or to commission a factory to fabricate them. Second, we had to consider that what we have to offer the farmer must be economically cheap for him to procure. Since the cost of manufacture is too highly prohibitive, we decided on the use of discarded buttons, from old pants and old dresses, as alternative.

By the button system, we took twenty-eight days, or the known number of days to a cycle, for the woman as the point of reference (we followed the Ogino principle and adapted it again for its implicity, the 7-22 method), and took the corresponding buttons tied to a string and suspended overhead, near the foot of the bed where it can be conveniently seen. We painted the first seven buttons, plus the last seven buttons (the 22nd-28th or the period representing safe days) with green, while the 8th-21st buttons (or the interregnum representing fertile days) with red. The choice of green and red paint was deliberate; it fitted our traffic concept--GO for green and STOP for red. At the first day of the menstrual cycle all the buttons are shifted to the right and, with the use of a bamboo stick, one button is move daily to the left (preferably at the same time to insure regularity and accuracy of order).

So everyday, for the first seven days, a green button is moved to the left, signifying that the day is a GO-day and on the 8th day the first red button is shifted, signifying the need for abstinence.

I had high hopes for this system because it was fairly easy to follow. A medical friend of mine, interested in rural family planning, saw this trick and requested me to write him about the result of my experiment (he felt it was a discovery which could help many people). I decided to document the whole process by following up 20 families in the village. After three months, I felt, to my chagrin, that most of the farmers were not so keen about the method, owing to a very important factor I had overlooked. The system was based on the distinction between red and green buttons; I found out later that, in the darkness, one cannot distinguish between green and red buttons as both would

merge and appear black in the distance. I had overlooked the fact that there was not electricity in the village and that, even with an oil lamp, which is rarely the case, one cannot easily distinguish the red from the green buttons. "When we are in doubt," a farmer told me banteringly, "as to whether the button is green or red in the dark, we always give ourselves the benefit of a green button."

Vis-a-vis these problems, the farmers complained about the overly long period of abstinence between the 8th and 21st buttons (the equivalent period of 14 days.)

XIII

These incidents help illustrate the need for considering the realities of the human factors involved in an actual attempt at family planning in the rural areas.

To take another case. We found out that most women who needed birth control for purposes of spacing their children wide apart were the very ones who cannot take advantage of the benefit provided by the rhythm method because there is a general belief prevalent in the community that one cannot be pregnant when the mother is breast-feeding. This, as we know, is not true (it merely prolongs the period without the menstrual cycle, after a baby is born) and leads to a very closely-spaced child bearing tendency. It is therefore not uncommon to have women without regular menstruation for a period of 8 to 13 months and during this length, pregnancy generally occurs.

Aside from this, some of the younger women who needed the use of the rhythm method do not have, likewise, regular cycles. Somehow, regularity is observed more among the middle-aged group, after more than enough babies have been born. Some amount of distress is registered by women who get variations in their monthly cycles when they get sick, when they quarrel, when the weather changes, and when other factors affecting her human physiology arise.

These exceptions do not purport to mean that the rhythm system is devoid of any importance in the village.

Rather, in terms of the limited experiences of a selected number of inhabitants, it proved not to have been very popular and widespread, much less if it is done on an endemic scale.

The author is the first to accept that the foregoing accounts are conclusive. The substance is however inescapable. That unless we consider the human element, based on an acquaintance and a rigid knowledge of barrio people and the method at hand, we cannot hope to go as far as to drastically reduce the birth rate of our country: most especially in the rural areas where now 80 percent of our population is living, and where the high birth rate phenomenon can be visibly accounted for.

XIV

Early limited trials to explain the physiology of conception have been very ineffective--for want of an exact dialogue and for lack of a better method--because of the tendency to explain birth and conception in terms of high sounding English terms.

In a recently held national conference on family planning, I had the occasion to ask a group of authorities in the Philippines as to what terms they use to mean family planning or birth control in the barrios. It was disconcerting to note that not one could mention the term in the dialect, yet all are involved--in the province or in the cities--in teaching birth control to dialect-speaking Filipinos.

It is fundamental that the term, as used and understood in the barrio or locality, should be studied carefully in order for one to communicate in a language or on a level the people understand. This takes time and effort, but it is essential--vitally and necessarily--for communicating with our people. Some barrios in the Central Plain use, for instance, the phrase: "Pagpigil sa panggigigil," to mean birth control. The English translation would mean something like--"to stop gritting your teeth," which does not mean anything to us like in the original. But it is what the rural people understand and, by all means, should be the phrase used to explain birth control.

Again, it is inconceivable to teach farmers birth control unless we have a way of explaining adequately, and effectively, the anatomy of the human body and the physiology of fertility and conception in the human being. Early experiences and observations of medical people and family planning promoters, explaining pregnancy to barrio women, show conclusively that the method of expounding on the ovum and the sperm, from the ovary and the testes, are very scientific but not quite effective. I suspect that the reason for the lack of comprehension among barrio people is the fact that these usual explanations are weird and something a farmer cannot quite understand, yet, by force of habit, we insist on them in English to achieve with medical students what in the barrio we would like to explain to non-medical people of low educational level.

The experience of the author indicates that, to date, the most effective manner of describing the formation of the baby is to use agricultural terms, delineating a parallel in seeds, plants, soil, growth in plants, and their equivalent in terms of anatomical structures evolved during the process of conception. The best was to look at sperm and ovum, in any experience, is to call them seeds in general or, what we call in Pilipino, "similya".

The need for the union of a male and female cell is best graphically illustrated by the need of a hen fertilized by a cockerel in order for the eggs to be hatchable. Biologically, this may sound absurd to an urbanite, but it is something farmers easily understand, for this is in line with the reality and facts of their poultry business. When this is connected with the physiology of fertilization of the ova and sperm, it becomes clear and comprehensible in their minds.

I find, too, that the best way to drive home the concept of the womb is to create a parallel between the soil and the "matris" (womb of the woman); if the soil is not ready, the seedling planted in it will wither and die. The cyclical periods of the woman, in which some days she is liable to pregnancy and in some days she is not, can easily be explained and understood in these terms; and the seasonal factor (farmers plant "sibuyas"--onions--after the "Un-

das"--ALL Saints' Day--in order to be productive) can be compared to the relative fertility and infertility of the womb upon the implantation of the seedling or the fertilized ovum.

Another ardous item of interest is how we commonly and easily mention, while lecturing, the word "ovaria", to mean the ovary of the woman. Yet this is one concept that women in the barrio find hard to comprehend. They have not seen one and, for practical purposes, are hypothetical and nebulous. How to mention the ovary in order to indicate the source of the female egg, the author has found out that communication becomes less problematical if one compares the ovary to the pod of a legume, like beans or peas. The pods have in them seeds that may sprout or fail to open, one at a time, depending on the character of the pod and the maturity of the seed.

The author is not saying that this genre is the best and most informative device of reconciling the problem--there maybe other means of stating it, modified by indigenous materials--rather, it may help to clarify the understanding of the farmer and the early rapport developed between the promoter and the rural people.

XV

Another illustration in terms of my experience will help drive home the need for similar effort to use local situations and materials appropriate to explain birth control to the people.

Experiences in trying on the family planning pills have shown some resistance by some women in the barrio because they cannot quite comprehend that a small pill can curb concepting; that a foreign body, so miniscule, can so affect the process of baby-making. This fact is compounded by the observation of one woman in the barrio who said that the pill is nothing more than a pedriatic aspirin preparation because--unfortunately--the color of one preparation is orange and the most prevalent baby aspirin, which has the same color, in the vicinity is orange-flavored. On top of this, the size and shape of the pellet is exactly the

same. Probably a change in color and shape may help alter this concept. The experience of the author seems to suggest that since conception is closely equated with eggs, the most logical and acceptable shape of the birth control pills would be oblong and that the color would be egg-shell white. In other words, the pills should be made to look like miniature eggs and so would be psychologically acceptable as a determinant for preventing pregnancy.

The factor of introducing the pill and making the farmers understand its mechanism is something else. Fortunately, a survey on the attitude of rural people towards family planning was conducted on a rather intensive scale to arrive at a general approximation of the human factor involved. It is essential for the family planning promoter to know exactly in advance the number of children barrio families prefer. If he mentions a rather small number, the authority with which they would look at the promoter decreases.

How much these little things affect the reliability of the experiment cannot as yet be measured, but it is felt unanimously that in this activity all items should be considered equally to achieve maximum rapport and understanding.

XVI

In this survey a clue to an approach for the introduction of family planning pills in the barrio was gathered.

It is generally thought (among poultry raising regions, for instance that ipil-ipil branch extends into the confines of a poultry and seeds fall within the reach of the chickens, their egg-laying capacity declines. However naive this presumption may have been (at least, so I thought) that best part of it can be used as a revealing means to explain the function and mechanism of the pills.

In subsequent lectures, I desisted deliberately from mentioning anything about the chemistry and pharmacology of the family planning pills, but instead proceeded by explaining,

"What I am holding before you are purified ipil-ipil seeds which, if taken in by women, will lessen her laying capacity. This is similar to chicken that eats ipil-ipil seeds and so the egg production of the chicken diminishes. In the same way, if a woman takes in this pill she will not lay eggs and therefore cannot conceive. And if she stops taking in these pills her egg-laying capacity will return and can have a baby if she so desires."

This procedure is based on a tested and widely accepted principle; that is--we must teach (while in the process of introducing) the new with reference to the old and familiar.

The foregoing account is shared in the spirit of learning lessons from one's mistakes. They are not intended as authoritative statements--nor do I expect that they be taken as such--on the subject, but are merely impressions culled from three-and-a-half years of barrio visit and personal research.

If rural reconstruction and attempts to renovate our barrio people can--and will continually and--only in a predestined series of failures, each failure (I am sure) means that we are only nearing success. It is not so much the number of times we fall but the more number of times we stand up everytime we fall that counts.

MORAL ASPECTS OF FAMILY PLANNING IN CONTEMPORARY CHRISTIAN SOCIETY

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Family planning or family limitation, often referred to as Responsible Parenthood, when properly understood, is today an acceptable part of the total Christian approach to marriage. It was not always so. In fact, fifty years ago, little or nothing was spoken about "responsible parenthood" but today, for many reasons, it is very frequently mentioned.

In former times so little was known about human reproduction that there was a widespread tendency to consider the size of the family, a matter which God, not man, decided. With the advance knowledge, the availability of various means to limit births, with the unprecedented increase in births giving rise to what is popularly known as the "population explosion", many Catholics are now faced with a new and basic question: What are the respective roles of Divine Providence and Human providence in family planning? The sphere of human providence has clearly been widened. Given a situation where the number of children is a serious practical problem, if there exists a legitimate, effective, and reasonably available means to regulate the size of the family, Christian prudence requires that this method be taken into consideration along with other factors when these personal decisions are to be made.

Man shares in Divine Providence by being provident both for himself and others as St. Thomas teaches. There are many cases today when it is no longer the part of prudence to put the whole problem of family planning in the hands of God. And the more effective becomes the means of family limitation, the more will parents have to reconsider their attitudes towards the role of human and Divine Providence in this matter. From the moment Pius XII asserted, "the legitimacy, and at the same time, the limits--in truth very wide--of a regulation of offspring, which un-

like so-called 'birth control' is compatible with the law of God," the need for reconsideration became inevitable.

We shall discuss this problem of family planning by first stating clearly the doctrine of the Church concerning the moral aspect of the question. We shall then speak about rhythm and consider some of the practical difficulties encountered in its practice. Next we shall consider the question of anovulants and their various uses. The intra-uterine device for preventing pregnancy will then be discussed. Finally, we shall review briefly the high points in the current controversy among theologians about the morality or immorality of contraception.

The current teaching of the Church on contraception specifically on the pills: Pope Pius XII spoke on the morality of using anovulant pills on September 12, 1958:

Is it illicit to prevent ovulation by means of pills used as remedies for exaggerated reactions of the uterus and of the organism, although this medication, by preventing ovulation, also makes fecundation impossible? Is this permitted to the married woman, who, despite this temporary sterility, desires to have relations with her husband? The answer depends on the person's intention. If the wife takes this medication not with a view to prevent conception, but solely on the advice of a physician, as a necessary remedy by reason of a malady of the uterous or of the organism, she is causing an <u>indirect</u> sterilization, which remains permissible according to the general principle concerning actions having a double effect. But one causes a <u>direct</u> sterilization, and therefore an illicit one, whenever one stops ovulation in order to preserve the uterus and the organism from the consequences of a pregnancy which they are not able to stand. Certain moralists pretend that it is permitted to take drugs for this purpose, but this is a mistake. It is necessary likewise to reject the opinion of many physicians and moralists who permit the use of them whenever a medical indication renders a too early conception undesirable, or in other similar cases which it will not be possible to mention here; in these cases the employment of the drug has as its end the prevention of conception by pre-

venting ovulation; there is question, therefore, of direct sterilization."
Cited in Ford-Kelly: Marriage Questions
1963, pp. 341-342.

On contraception in general: Pius XII in his encyclical on Christian Marriage in 1931:

"Any use of marriage whatever, in the exercise of which the act is deprived through human industry of its natural power of procreating life, violates the law of God, and of nature, and those who commit anything of this kind are marked with the stain of a grave sin."

Pius XII on contraception in general:

"...that any attempt on the part of married people to deprive this act of its inherent force and to impede the procreation of new life, either in the performance of the act itself or in the course of the development of its natural consequences, is immoral."

"...(the condemnation of contraception is) as valid today as it was yesterday, and it will be the same tomorrow and always." AAS, 43 (1951) 843.
Cited in Ford-Kelly: Ibid., p. 262

Pope Paul VI on contraception and the pills:

"The problem, everyone talks of it, is that of birth control, as it is called, namely, of population increases on the one hand, and family morality on the other. It is an extremely grave problem. It touches on the mainsprings of human life...The Church recognizes the multiple aspects of it...the Church will have to proclaim this law of God in the light of the scientific, social, and psychological truths which in these times have undergone new and very ample study and documentation...The question is being subjected to study, as wide and profound as possible, as grave and honest as it must be on a subject of such importance...But, meanwhile, we say frankly that up to now we do not have sufficient motive to consider out of date, and therefore not

binding, the norms given by Pius XII in this regard. Therefore, they must be considered valid, at least until we feel obliged in conscience to change them."
June 23, 1964

Decree of the Vatican Council, November 16, 1865:

In what seems to be an Ad Interim decree the Council, by an overwhelming majority, approved a decree which insists on obedience to Church discipline banning all artificial birth control unless and until it is modified by the Pope.

Some theologians had said that the doctrines of the Church was no longer certain due to the many disputes that had arisen. One Bishop had expressed the same opinion in the aula of St. Peter's during the current session of the Council.

This decree insists on the binding force of the Church's traditional teaching, as expressed so clearly by Pope Pius XII, but leaves the door open for possible changes if and when the Pope so decides in the light of the reports submitted by the Commission re-examining the whole problem of contraception.
(From reports in the local press, November 17, 1965)

THE PRACTICE OF RHYTHM:

Even the most enthusiastic defenders of rhythm always qualify their optimism by saying that rhythm works for those who are properly instructed and highly motivated. Even with such people a certain percentage of failure must be allowed due to irregularity in cycles.

Now, if we look at the Philippine scene we find that we are living in a nation which the demographers say has one of the most rapidly increasing, if not the most rapidly increasing population in the world. The extraordinary success in death control due to improved hygiene and the use of modern drugs has brought about a situation where practically all children survive to reach the age of marriage

and reproduce. The present population increases at the rate of more than a million a year and the rate of increase is speeding up each year.

Due to numerous conditions in modern life more and more parents are thinking of limiting the number of their children. This is attested to by doctors, nurses and midwives. The records of Bureau of Customs showing the amount of money annually spent on the importation of contraceptives would give us more proof, if it were needed.

In a Catholic country with such a population problem, where the people express openly, especially in the urban and suburban areas, their desire to limit their families, we would hope that information on the practice of rhythm would be readily available to the people since, as Catholics, it is the only means of family limitation approved by the Church. Unfortunately, such information is readily obtained in very few places.

Doctors admit that as many as 80% of the medical profession are not capable of imparting correct information on the practice of rhythm. The doctors could easily acquire the necessary information but they are not interested in it, sometimes because they have no confidence in it, more commonly perhaps because the time involved in instructing couples is a deterrent and the medical fees for helping a couple to avoid pregnancy can't compare with the fee for the safe delivery of a child.

Since rhythm works only for those who are properly instructed and highly motivated where are the people going to get the proper information if so many of the doctors are not prepared to help them? This is a formidable obstacle for the ordinary people.

When the doctor is ready and willing to instruct couples, then he finds that there are many obstacles which he has to overcome. The pedagogical problem in itself is a very challenging one. The practice of rhythm demands a knowledge of some fundamental biological facts which many women are blissfully ignorant of, not to mention the hus-

bands. This takes time and patience and presupposes a certain rapport established between the patient and the doctor so that the women will finally speak openly of such things.

Poverty causes some difficulties. For example, it is easy to, say, buy a thermometer. But it may not be easy to find the money to buy it and in a poor nipa house it may easily be lost or broken by children. Even marking a calendar presents a problem in a poor home. As one doctor related from his years of experience in the barrios the calendar marked by the mother attracts the attention of the children and they may start marking it in imitation of their mother's mark and nullify the whole procedure! Then teaching the woman to read the thermometer properly is no easy task. And to tell her to lie quietly in bed in the morning and take her temperature and record it before she gets up and before she does anything else is asking a great deal from a poor woman sleeping on a mat on the floor with a brood of children who seem to be full of atomic energy in the morning.

These difficulties are not insuperable but they cannot be ignored. And we cannot ignore the statements of doctors that so many women have irregular cycles in the Philippines for reasons that are not yet too clear. We read of epidemics, of the flu, of dysentery, of gastro-enterities, in various parts of the nation from time to time. All of these will interfere with a woman's temperature and make it more difficult, if not impossible, to guide herself in the practice of rhythm by the use of the temperature method.

Another problem that occurs which makes the practice of rhythm very difficult arises from the fact that some women will be married, let us say, twelve or fifteen years and during all that time they have not menstruated! They were always pregnant or nursing a baby during those years. Now when they wish to practice rhythm, they have no idea of the irregularity or regularity of their cycle. The problem arises in the long period of continence that would be necessary for the woman to know the pattern of her cycle.

Poverty creates a problem in another way in as much as the women in the barrios seem to be more effected by the change in climate so that the dry season and the wet season causes variations in their cycles. Perhaps this is due to the fact that the poor nipa hut offer so little protection from the dampness of the ground.

These obstacles to the practice of rhythm present a challenge, a demand for research, for a program of education on a grand scale. If properly planned, the big Foundations could be almost certainly counted on to aid in the implementation. It seems to be too big a problem for the Church to handle alone and the Church should not be expected to handle it for this is truly a national problem vitally affecting any plan for economic development. But the Church must stay close to the program since it is a most important moral problem as well.

At present, in any local government programs, to my knowledge, more lip service is paid to rhythm and then stress is laid on various types of contraceptives, especially the IUD. Thus, in a Catholic country, where the vast majority of the people coming to government health centers are Catholic and where the great majority of the personnel administering such programs are Catholics, the emphasis is on family limitations prohibited by the Church. The Catholic Nurses' Guild and other Catholic groups have within the past few months openly manifested their disapproval of the way such programs are being administered.

But a mere condemnation of what others are doing is never the answer to a problem. Knowing this very well some members of the Hierarchy have already started to present a positive solution to the problem by establishing Family Clinics where couples can go to obtain the much needed advice which is so necessary if they are going to solve their family problems in a Christian way. Considering the number of Catholics in the Philippines and the number of couples who can be presumed to wish this information, the few clinics thus far established are pitifully inadequate. But a start has been made and since nothing succeeds like success, it should just be a matter of time be-

fore such clinics dot the land. This has been done on a large scale in other countries. In Europe and in North America and has proven most acceptable to Catholic couples and most helpful to them in their efforts to lead a Catholic life in the modern world.

THE ANOVULANT PILLS

The anovulants deserve special mention because of their great popularity and widespread usage. Also they stand out among all other forms of contraceptive yet invented because they have so many uses, even being capable of curing sterility and aiding pregnancy. Some of these uses are clearly legitimate, others present grave moral problems. We have seen that the problem was serious enough to merit special consideration from Pius XII who prohibited their use for strictly contraceptive purposes, that for which they are most widely known. To evaluate the morality of their usage, it is most important to know exactly what the anovulant pill does.

THE ANOVULANT: WHAT DOES "THE PILL" DO?

The anovulant pill, known by the trade name "Enovid" or "Ovulen", is best known on the world market as an oral contraceptive. Ovulen, for example, is advertised as "The new Searle oral contraceptive". The other important therapeutic uses are not as well known to the ordinary laymen but are well known in medical circles.

When the pill first appeared on the market the literature stressed the fact that it inhibited ovulation. Gradually, it became known that it <u>also</u> would so effect the mucous of the cervix as to prevent the sperm from entering the uterus, much in the manner of a cervical cap, and, thirdly, if ovulation should occur and fertilization take place, the pill would so alter the endometrium that the implantation of the fertilized ovum on the wall of the uterus would not take place. This is another way of saying that the third effect of the pill is abortion.

Evidence slowly accumulated to show that the pill did not always prevent ovulation. Thus the other two effects of the pill were necessary to prevent conception. Dr. Frank Ayd, Jr. has gathered together some statements of experts in the field:

"Ovulation occurs in some 8% of cycles, whatever type of oral contraceptive is being taken."
British Medical Journal

"Those of us who are prescribing these compounds to a large extent know that a substantial number of women may ovulate on occasion."
Dr. E. Taylor: American Association of Planned Parenthood.

"...some studies with direct inspection of the ovary suggests that ovulation is not inhibited in every case and in each cycle."
Dr. A. S. Mason: Fertility Conference, London, 7/4/64

"On the basis of studies we did on the effect of progestagens on ovulation, I feel that these agents do disturb the nidatory factor. I do believe that most compound used in low dosages, for example 2.5mg. to 5mg. of Enovid, may not inhibit ovulation in the majority of the cases but rather interfere with nidation and sperm penetration into the cervical canal."
Dr. M. Roland of the New York Fertility Institute:

"And the effects of the exogenous progestagen on the endometrium and cervical mucous are probably supplementary anti-fertility factors, which will prevent conception even in the event of a breakthrough ovulation."
Lord Brain, president, Family Planning Association of England, (Lancet, 12/19/64)

These statements appear in an article or rather, letter, to the Editor in the August 18th number of THE NATIONAL CATHOLIC REPORTER.

Dr. Ayd concludes by stating that, "By the testimony of most experts, ovulation can and does occur in women on oral contraceptives, especially in the new low dose compounds. Hence, there is an egg available for fertilization. Should this happen, the embryo may not survive because of endometrial distortion which interferes with nidation. This I call an abortifacient effect."

In the Philippines where the most common form of the drug is the low dosage type, 2mg. or less, we would have to conclude that the pill is acting strictly as a contraceptive to prevent the sperm from entering the cervix or, if perchance the sperm does enter, as an abortifacietn. The effect of most talked about and presume to be taking place--the inhibiting of ovulation, has been made impossible in the majority of cases.

It is most important to keep these facts in mind because the attempt of some moral theologians to justify the use of the pill to prevent conception supposed that it inhibited ovulation. Their arguments proceeded from that premise. When that premise is no longer verified because the scientists have changed the contents of the pill quantitatively the theologians can no longer be cited in favor of the pill.

The non-contraceptive or therapeutic uses of the pill are well known in the medical world and usually present no moral problem. Thus the cure of excessive uterine bleeding, of dysmenorrhea, of pre-menstrual tension, of threatened abortion, of infertility and other pathological conditions can be effected by the use of the pill without any moral problem.

Some of the other uses of the pill, for example, the regularizing of the cycle to facilitate the practice of rhythm, could not be effected unless the pill were given in the 5mg. or 10mg. dose. Likewise, to suppress ovulation during the period of lactation, (a point much disputed among the moralists) would suppose also that the large dosage was being used. Otherwise, the pill would be used strictly as an abortifacient or a contraceptive.

Besides the anovulants other pills have appeared on the market in the past decade, for example, duphaston which is said to be able to regulate the cycle without suppressing ovulation. There is also talk of a drug that will trigger ovulation. This would make the practice of periodic continence (rhythm) relatively easy since it would enable the woman to know exactly when the ovum was present. No doubt there are other such drugs related to the control of the ovulatory process in the female. Unfortunately, one of the leading moral theologians of Rome, Fr. J. Fuchs, S.J., is of the opinion that every important drug (pill) on the market for regulating ovulation is abortifacient. If this is true, and it is a matter of a fact to be verified with regard to each pill, then all the known pill would fall under the Church prohibition of abortion, independently of any specific prohibition of Pope Pius XII or Pope Paul VI on the use of the pills for contraception.

THE INTRAUTERINE CONTRACEPTIVE DEVICE--IUD or IUCD

In the past year a new contraceptive device appeared on the market. It is a loop or coil inserted in the womb by a doctor. It prevents pregnancy but the scientists are not agreed on its precise method of prevention.

One theory is that the device causes continuous contraction and expansion of the uterus and so prevents nidation if there happens to be a fertilized ovum passing through the uterus. This, of course, would mean that it was expelling a fertilized inviable ovum from the womb and that is abortion.

Another theory is that continuous expansion and contraction of the uterus caused by the insertion of the IUD reacts on the fallopian tubes and causes them to contract and expand and this accelerates the passage of the ovum through the tube to such an extent that fertilization is impossible. If this is the true explanation, then the IUD is not abortifacient but produces its effect by modifying the natural process. It is not so clear that this would be condemned as a frustration of nature.

The IUD has spread so rapidly that many predict the pill will disappear off the market as a contraceptive. The pill is too expensive for the poor people in the areas where family planning is most needed. With the pill there is need to remember when to take it and forgetfulness can make the woman more fruitful than ever due to the "rebound effect". Using the pill means a continuous expense whereas the IUD costs but a few centavos and is inserted once and then forgotten. The IUD in no way interferes with the integrity of the marriage act itself, and the couple are in no way conscious of its presence. With the IUD there are no side effects so far discernible.

From the medical point of view we should first note that the IUD is not one hundred percent effective in all cases. The SCIENCE NEWS LETTER for Oct. 9, 1965 carries an account of a child born to a woman who was using an IUD. The article stressed the fact that the child was born normally and there was no harm to the mother or child due to the presence of the IUD. While proving that the IUD is not harmful it also proves that it is not completely reliable.

From the moral point of view, as long as the IUD is even probably abortive it can never be approved by the Church. We cannot use a probable opinion when it is a matter of the life or death of an innocent third party, in this case the fetus. If the scientists were able to establish exactly how the IUD works and were able to rule out abortion, the judgment of the Church might be different.

We noted that there were no side effects so far discernible in women using IUD. Naturally the period of time in which it has been in use is very limited and so we will have to reserve judgment on this aspect of the question. We did hear one disquieting rumor that the IUD caused "cellular disturbance" which is, I believe, a euphemism for cancer. If this is true, it would be due to the fact that as a foreign body it was causing irritation of the membranes of the uterus, much in the way smoking is thought to cause irritation on the membranes of the throat. But it is too early to pass judgment since the evidence is not in yet.

Controversy among the theologians re contraception:

Although the doctrine of the Church is clear from the official magisterium as manifested in the latest decree of the Vatican Council yet there seems to be no end to the disagreement among the theologians about what should be allowed or what should not be allowed in this matter of contraception. There is a strong conservative group that insists on the maintaining the teachings of the Church exactly as it is and has been, banning any and all forms of artificial contraception. There is a liberal group that would leave the problem up to the consciences of the married couple to decide sincerely before God if they should practice contraception and how they would do it. Another group would condemn all traditional forms of contraception but allow the couple to use the nature-imitating techniques, such as the anovulants, when they needed them to help them practice rhythm. These various positions are based on arguments that cannot be lightly dismissed and yet none of them is able to sweep aside the objections of their adversaries. Let us sample some of these arguments to see how they proceed that we might better understand the difficulties facing the Papal Commission in reaching the decision.

The conservative or traditional group takes its stand on the many statements of the Holy See that have consistently condemned "any use of marriage whatever, in the exercise of which the act is deprived through human industry of its natural power of procreating," as Pius XI expressed it in 1931 in his encyclical on Christian Marriage. The statements of Pius XII re-enforce this teaching and put the conservative moralists on very solid ground defending the teaching of the Magisterium. They do not merely repeat it or argue from authority but they attempt to prove the intrinsic merit of the official teaching arguing from the Natural Law and the very finality of the generative faculties, a finality given to them by the Creator Himself.

Fathers Ford-Kelly, in their book on Marriage Questions (Newman Press; 1963) give a thorough exposition of the traditional doctrine and attempt to defend it against some of the modern attacks, Professor Germain Grisez of

Georgetown University in his book, Contraception and the Natural Law (Bruce; 1964) re-examined the traditional arguments from the natural law against contraception and he found them basically solid but in need of better expression.

The traditional argument that it was intrinsically evil and always forbidden to use the reproductive faculties and at the same time interfere with their natural effect of procreation (the perverted-faculty argument) Grisez examines very carefully and concludes that it is a very sound argument only after it has been proven that it applies exclusively to the sexual faculty. Thus any other exception that can be imagined and justified with regard to any other faculty of the body does not weaken the argument when applied to the sexual faculty where there is no exception allowed. "In the case of any other faculty, the effects of frustrating the act from its natural end are judged in terms of their relationship to human life and health as a whole rather than in relation to the end of their particular faculty.....In the case of generation a different principle applies simply because the procreative good is in itself an essential human good.....It should be clear by now to what extent those who rejected contraception as an interference with the integrity of the marital act were headed in the right direction. To the extent that contraception is indeed an act which distorts the natural design of sexual relations by introducing a morally forbidden fact--the positive interference by which conception is prevented or rendered less likely--it is an interference with the integrity of the marital act itself." (pp. 100-101)

Fathers Ford and Kelly after citing many Papal statements concludes: It seems to us that the passages cited clearly imply that the marriage act has the character of divine design, natural and inviolable, not only as a procreative, but also as fulfilling the secondary ends of marriage, especially that of conjugal love." (p. 289)... "Artificial insemination is condemned precisely because it separates procreation from the personal act of loving self-surrender. In other words, the marriage act has a natural design as an act of conjugal love, too. This leads us to still another conclusion, not explicit in the Papal statements, but de-

rived from them: That contraception itself is wrong, not only because it violates the marriage act as procreative, but also it violates it as an act of loving, conjugal self-donation. The act has a natural design as expressing conjugal love. Contraception violates this design, too. It falsifies married love. This aspect of the immorality of contraception is now receiving increasing attention from theologians. (.200).....Hence, contraception is intrinsically immoral for two reasons: It deprives the act of its basic procreativity and it falsifies married love. A contraceptive act may express what the parties themselves call love, but it is not the love that is supposed to be expressed in the conjugal act. And a non-contraceptive act may fail to result in actual procreation; but this is not a fault or defect of the opus hominum; consequently, choosing such an act does not constitute a violation of God's design." (p. 291)

In spite of these and similar defenses of the traditional doctrine, and in spite of the unchanging stand of the Magisterium, a strom of controversy has arisen in protest against the doctrine. In the secular as well as in the Catholic press, in books and periodicals up to this very hour the battle rages. The clergy as well as the laity are deeply involved in the struggle and this is a very healthy sign since this problem is not merely one for the theologians but one that concerns the laity in a very special way.

Those who attack the traditional doctrine do not always agree among themselves as to how it should be changed but they all insist on a change. Some argue that the Church's teaching no longer corresponds to the times. That the world of the twentieth century is unique with unique problems such as population growth the like of which the world has never seen, tensions arising from the furious pace of modern industrialized society with its excessive demands on human resources, the tensions arising from the endless succession of wars, hot and cold, and continual threats to peace in a world living in a never-to-be-forgotten memory of the atomic cloud hanging over Hiroshima and knowing the stockpile of nuclear bombs grows from year to year as more and more nations insist on possessing such bombs. These and many other developments of the second half of this century have given us problems that will not go away

and seem to defy solution along traditional lines. The liberal school of the theologians propose a whole new approach and question the validity of the doctrine that has been in possession for so many years but, they insist, does not apply to modern life.

Approaching the traditional doctrine from the historical point of view some object that it contains too many Gnostic and Manichaean elements, that it is too much influenced by the teaching of St. Augustine who thought that the only intention of procreating could absolve the couple of sin in the use of their marriage rights. Some object that what Canon Law says about the purpose of marriage can only be understood against the background of Ulpian's teaching on natural law and the scholastic concept of genus and species, a system in which they say that man is seen too much under his generic aspect (in as much as he is an animal) and too little under his specific nature (in as much as he is a man). Much of this natural law, they hold, stems from a picture of nature that is no longer adequate or frankly out of date. It does not allow enough for growth and change, for the new emphasis on the dignity and freedom and responsibility of the person as an individual, on the new understanding of and changing role of sexuality is a world that would hardly be recognized by St. Thomas and the Scholastics. Far too little attention has been paid to man's historicity and the growth of knowledge about himself. The position of woman in the modern world has been cited in the encyclical Pacem in Terris as one of the most significant phenomena characteristic of our modern world. This has led necessarily to a change of the role of woman in the marital partnership.

These and a host of other ideas that have taken root in our post-war world have led many to reexamine the traditional doctrine and to find it wanting. A recent statement prepared at the University of Notre Dame by some of the leading theologians of the United States and Canada and submitted to the Papal Commission which is currently studying the whole question gives us some idea of the conclusions to which these theologians are tending in the light of their current reappraisal. We list some of their significant statements:

"3. The members of the conference do not find convincing the arguments from reason customarily adduced to support the position. These arguments do not manifest an adequate appreciation of the findings of physiology, psychology, sociology and demography, nor do they reveal a sufficient grasp of the complexity and the inherent value of sexuality in human life.

"4. .....Furthermore, a majority of the members of the conference questioned placing exclusive focus on anovulants, since it is not evident that there is a significant moral difference between these and certain other methods of contraceptive birth control.

"5. The majority of the members were of the opinion that there is dependable evidence that contraception is not intrinsically immoral and that there are certain circumstances in which it may be permitted or indeed even recommended. While marriage is ordered to procreation, the individual acts which express and deepen the marital union need not in every instance be so ordered. For procreation in the full sense (bonum prolis) includes the christian rearing of the child in a well-regulated, harmonious environment of love. This environment may demand the continuance of sexual communion even if a pregnancy cannot be responsibly undertaken.

"It must be noted, however, that several members of the conference, while not ready to subscribe to the position outlined in the previous paragraph, nevertheless, are certain that the weighty arguments adduced in support of the position require that the matter be kept open for continued study.

"6. The members judged that as the Church looks to the application of the Gospel to moral conduct, she must seriously examine and evaluate the experience, wisdom and present practice of all her married children. The members were also convinced that in studying the important moral question of family life, the Church should seriously consider engaging in dialogue with, and reflecting on the witness, of other Christian Churches."

The IUD has spread so rapidly that many predict the pill will disappear off the market as a contraceptive. The pill is too expensive for the poor people in the areas where family planning is most needed. With the pill there is need to remember when to take it and forgetfulness can make the woman more fruitful than ever due to the "rebound effect". Using the pill means a continuous expense whereas the IUD costs but a few centavos and is inserted once and then forgotten. The IUD in no way interferes with the integrity of the marriage act itself, and the couple are in no way conscious of its presence. With the IUD there are no side effects so far discernible.

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WHAT IS THE GUIDING PRINCIPLE IN FAMILY PLANNING

Gregorio G. Lim, M.D.*

(This deliberation on the Moral Aspect of Family Planning was presented by Dr. Lim in a Symposium sponsored by the Catholic Physicians Guild, the Catholic Nurses and Midwives Association and 7 Medical Organizations of the Philippines which was held at the University of Santo Tomas Auditorium, November 24, 1965.)

When I was informed that the discussions on Family Planning would evolve more or less on the moral aspect, my first reactive feeling was that of my own personal embarrassment because I believe that I am neither a moralist nor a moral thinker. I am just a mere physician, and the very truth is that I am a physician of the slums. But I undoubtedly believe that I am here because I am the president of the Family Planning Association of the Philippines, and for this, I am very grateful and feel deeply honored to be with you, especially with the members of the sectarian societies.

Because of very limited time I will confine myself to the moral aspect because of its supposed importance and reason for certain criticisms directed upon our family planning action program. Thoughts and opinions I have to express here are my own, although some may reflect the spirit or objectives of the association I am heading. I shall also quote statements and opinions of world known Catholic thinkers, theologians and moralists, and intentionally not mention those of the non-Catholics who are equally em-

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inent in order to dismiss any prejudiced impressions. This is an indication how the world of today, unlike the world of the past, is the most free in the way of thoughts and expression of feelings so that dictatorial impositions are no longer possible.

This reminds me that occasion when Dr. A. Guttmacher, president of the Planned Parenthood Federation of America, was here months ago as guest speaker in a meeting jointly sponsored by seven medical organizations and institutions. But there was one medical organization that did not join because of its given reason that the speaker is a non-Catholic. I could hardly believe that such mode of thinking still exists in a democratic environment and Christian spirit that we are all brothers, and at this age when Pope John has his aggiornamento and Ecumenical Council made up of Catholic and non-Catholic theologians and thinkers. But I believe the true picture of Catholicism in this country is very well described by Alfredo Roces in his Manila Times column (Nov. 20, 1965) and I quote: "If there is one healthy aspect of Catholicism in this country, it is this broad political freedom and the responsibility delegated to the individual conscience. Who is the Catholic who would prefer a "solid vote" for the choice of a hierarchy under pain of sin? This freedom which is lamented as a lack of a solid Catholic vote even when there are no religious or moral issues involved, is a blessing, not a weakness of the Catholic Church."

The responsibility delegated to the individual conscience is a self-awareness that one has to follow especially if his sole interest is the welfare of the common masses he is exposed to. I believe this is very true among doctors and family planning workers especially in the poor sections of the country. Conscience is the greatest guiding force that God has given us to see what is right. Love and charity are another. "Pope Pius XII bore eloquent witness to the profundity and inviolability of this mystery, the conscience. He spoke of it as the innermost and most secret nucleus in man. It is there that God whose voice sounds in conscience. Conscience is a sanctuary on the threshold of which all must halt, even in the case of a child, his father, and mother...."

I believe these reflections will help us understand the insights to which Pope John gave expression in his Pacem in terris (Peace on earth). "What is original in this encyclical is not that it introduces some entirely new value or concept but rather it orders traditional values and concepts in a new way. That is, whereas it has been customary for Catholic theology to speak first of nature (as in the rhythm method and others which are based on natural law), and only derivatively of person, first of duties and then of rights, Pope John choses to invert this order and to treat of person and rights as the more immediate and evident realities. He speaks of a natural law that reveals itself to the conscience of a free person."

Living all my life and the best of my 30 years of medical practice in the slums of Tondo having a population of 600,000 mostly poor families which are no different from poor families in other parts of this country which reach 80 percent of the entire population, I am in a position to tell you how people live in miseries, filth and sufferings due to poverty, broken homes, juvenile delinquencies and criminalities almost all due to irresponsible parenthood; very sickly malnourished mothers due to so many pregnancies with very little food; so many children in rags and hungry, with no moral and religious education, roaming the streets with no future at all. These are the brutalities of poverty and irresponsible parenthood that you cannot observe in the churches and in the charity wards of our hospitals, neither in the family planning clinic of this institution, the U.S.T. Just because of certain traditions and teachings of the Church, shall we turn our back and close our eyes and to these people and wait for another generation of them, and very much larger in population, who, because of their sub-human situation in life, are destined to become rebellious and un-Godly in their ways of life? Are these not enough sins committed in which we are participants?

Do we have the conscience not to show them the family planning methods for responsible parenthood? As Bishop Bekkers has expressed that "it is a sign of faulty theology if we would let married couples believe that God does all the planning for them, for they alone are responsible to make the decision when and how many children they will

have. It is a sign of their lack of freedom and moral choice if they will not take this responsibility in parenthood." In this pluralistic society we have to allow them to make the choice as to what contraceptive methods they prefer.

To me, there is only one Christian course to take, and that is to face this problem of irresponsible parenthood with our conscience and with the "love thy neighbor" attitude, and with that selflessness with Christ who came "not to be served but to serve." "Here the selfishness that characterizes all sin is overcome by a generous openness to the other, the only ultimate criterion of morality and virtue." This is to quote theologian Kieran Conley of St. Meirad Seminary. In this context we can do no better than to quote from Bishop de Smedt (loc. cit,): ".... he can fulfill the will of God only as the divine law is perceived through the dictate of conscience.... From the nature of things, in forming his judgement, whereby man tries freely to conform to the absolute demands of God's rights, neither any other man nor any human institution can take the place of the free judgement of man's conscience. Therefore, the man who sincerely obeys his own conscience intends to obey God himself, although at times confusedly and unknowingly, and is to be considered worthy of esteem... The greatest injury is to prevent a man from worshipping God and obeying God according to the dictates of his conscience." Now the Vatican has approved the freedom of religious belief according to one's conscience.

All of these do not refer only to those who promote family planning methods but also to those people in need of them. In the dynamic interplay of tension and harmony, we must leave room for the free exercise of even those consciences which we must regard as erroneous... provided always that the genuine demands of the common good, particularly the integrity and liberty of the consciences of others, be respected. Cardinal Newman, on the basis of his experience always insisted and said, and Father Bernard Haring, a peritus at the Vatican Council and also a consultor for the Theological Commission of the Council, has to repeat this whenever he was asked to comment in the use of the oral pills: "Whoever follows sincerely his

conscience, even if the conscience is erroneous, is on the way into full light (truth and virtue)."

We must have patience to allow people to discover what is love and what is delusion. What is even more necessary: we must have the courage to believe what they want to. "A lack of complete conformity of moral practice may not be a desirable thing in itself, but it is surely not too high a price to pay for the free submission to God of men who act from conviction rather than fear, of men who know that their Redeemer lives." And to paraphrase Cardinal Newman: "In the evening of life we shall encounter a Person and we shall be judged on Love." That is love of your neighbors, love of your fellowmen, and love of those who suffer and are heavy laden.

(In the OPEN FORUM which followed the symposium, the subjects of rhythm and abortion were brought out for discussion. Rhythm is accepted by the Church because it is based on natural law, and that abortions may be encouraged by family planning, to these, Dr. Lim gave the following comments.)

Even the condemnation of modern birth control methods on the basis of "Natural Law" is itself undergoing re-examination by Catholic thinkers. Dr. Frederick Flynn, professor of ethics and philosophy at the Catholic College of St. Thomas in St. Paul, Minnesota, appeared before the Catholic Physicians Guild of Southern California and offered an audacious re-interpretation and this argument has been re-echoed in private by others. Dr. Flynn said, "Nature and reason are twin dynamisms in man, at times in partnership, at times in conflict. Is man bid to live only according to nature? Hardly, else he would go through life naked, eating hay and sleeping in the forest. Live according to reason? Obviously, else why does man clothe himself with an artificial skin of wool and sit in a chair artificially carved from the forest? Nature is blind, irrational, capricious. That is why it is blasphemous to identify God and nature. The Supreme Intelligent Creator and His dumb creature."

"Man has always frustrated nature, from the time he invented the first tool. When nature is deficient in doing for human welfare human art makes up for the deficiency. When nature is excessively generous in its bounties, human art controls that generosity. In short, frustration of nature is often necessary for man's survival."

Even the rhythm method itself, which is acceptable to the Church, is un-natural. What is the difference between the rhythm and other modern methods of contraception is just a matter of time and space; one is dependent on time and the others on space. We have to control the space or the time. Many Catholic theologians and thinkers believe that the Church's knowledge is inadequate in biological, physiological, psychological and sociological sciences to suit the present pluralistic society.

The increasing number of induced abortion, not only in this country but also in most Catholic countries of the world (2 million abortions every year in Brazil, and 3 abortions for every live birth in Uruguay, etc.), have favored the adoption of modern family planning methods which are effective means of controlling or even stopping the practice of induced abortions.

THE MEDICAL ASPECTS OF FAMILY PLANNING*

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In the year 1961 when I had the good fortune of being elected president of the Philippine Obstetrical and Gynecological Society, I ventured to touch on the subject of population explosion at my inaugural address. I mentioned the active role that physicians could take, envisioned the setting up of family planning clinics in all government hospitals and suggested the inclusion of birth control courses in all medical and paramedical curricula. My suggestion of the method was specific, the use of the "safe period." We were completely aware of how little this would accomplish and how many failures to expect. But the method was better than no method at all and we decided to make a start. A series of symposiums on family planning were held. Before long we realized that it was not yet time to forge ahead and we had to accept defeat. However, as a gynecologist-obstetrician, I know as my co-specialists know that inherently practically every pregnant woman dislikes giving birth year after year. They want spacing, but they are too shy to take advice or too naive to know that medical measures can easily be instituted to lengthen intervals between deliveries or to suppress this altogether. Thus, we felt that it would not take long before couples would decide to seek advice openly. It came sooner than I thought. You and I know that presently, only four years later, family planning services have been opened and in a few clinics women toe the line for this much needed advice.

The advice that we give is as a rule time consuming

*Speech delivered at the Family Planning Seminar sponsored by the National Institute of Science and Technology and the Family Planning Association of the Philippines at the NSDB Science Pavilion, January 12, 1966.

because no particular method will completely suit a group or groups of women. There are differences in religion, in thoughts and concepts, in economic station, in education, in health, in anatomical structures, or in coexistant or concomitant medical conditions. No two women are alike and each is treated separately and birth control advice tailored to meet her needs.

The women who call in the medical clinics could be classified into two groups. The first include those who have heard about family planning services and wish to be elucidated on which method is best for them and the second, those who have chosen a method and wish to be helped in its proper implementation. It is obvious that the latter group had already deliberated on the merits or the disadvantages and difficulties met with use of other methods, else they would not be able to select the one that could best suit their needs. Our observation indicates that many of those belonging to this group prefer the use of either the IUCD (IUD) or the oral pills. They come with average knowledge of the method of their choice but invariably ask a lot of questions. As a clinician, I sense that they are intended more for assurance than for knowing the very correct answer. Among the questions commonly asked about IUCD are: (1) Are they not dangerous? (2) Do they not invite infection? (3) Do they not produce cancer? and (4) How long can I keep them? The answer to each one is: (1) They are not dangerous as long as the insertion is done by a trained physician. (2) They do not invite infection. The isolated reports of infection include those where infection was already present at the time of insertion but was not detected by the attending physician. (3) Years of follow-up have not shown any increase of incidence of cancer of the uterus any more than the non-users. And (4) to the present, it is advisable to keep the device for not longer than 3 years when a check up is deemed necessary. One month after removal, another one may be reinserted. We also volunteer the information that in the next 3 to 5 days following insertion, there may be some degree of spotting and hypogastric discomfort and that the first menstruation may be more profuse than usual. Generally, bleeding can be minimized with a few tablets of Vitamin K.

On pills, the question commonly asked are the following:

1. How do you take it?

2. Is it expensive?

3. Is it not harmful? I have read that it produces virilization and that it may cause cancer or blindness.

4. How does it work?

5. Suppose I forget to take a pill, what will happen?

Let me answer them one by one.

1. A tablet is taken on the 5th day of the menstrual cycle, counting always from the first day of the flow. One tablet is swallowed nightly until all 20 tablets are consumed. Wait for 3 to 5 days, at which time menses will begin and then start counting again. On the 5th day, resume taking another 20 tablets. This course is repeated month after month for as long as you wish to remain infertile. The moment you stop taking the tablets, you revert to fertility.

2. Lowest present-day cost of 20 tablets is ₱3.75.

3. Years of continuous and meticulous follow-up have not shown any definite deleterious effect of the drug. The few claims of virilization, or cancer producing potentialities or blindness are not supported by accepted methods of scientific analysis.

4. It works on the principle of suppression of ovulation, meaning that no female egg is produced and therefore there is nothing to be fertilized by the sperm.

5. Should you forget to take the pill, even for just one to two consecutive nights, the method might fail. For this reason, you must religiously take it.

I shall now take time to discuss the other group, those

who know little of the methods and who would be helped in the selection. I wish to emphasize at this point that the final choice must be left to the couple, not dictated.

The prevailing method practised in our country at present is still the abstinence or the rhythm method, the only two allowed by the Catholic Church. For correct implementation of the rhythm method a doctor must figure out for each patient the fertile and infertile days of her cycle. The Ogino formula is used. First, a history of the menstrual cycle of the preceding year is noted. Then the longest and the shortest interval between cycle is recorded. The figure "18" is subtracted from the shortest interval and the figure "11" subtracted from the longest interval.

> For example: If the shortest interval is 25 days, then 25 less 18 equals 7 which becomes the beginning of the fertile period. If the longest interval is 30, then 30 less 11 equals 19 which becomes the end of the fertile period.
>
> Thus the unsafe period for this particular woman is from day 7 to day 19, a period covering 13 days.

Studies have shown that when followed strictly, one can expect a theoretic effectiveness of about 90% for a period of 4 years. It is unfortunate that theoretic effectiveness is not the same as effectiveness on practical application. Failure is high, not because of erroneousness of the method but because of difficulty of implementation. As a guide, gadgets and devices have been conceived, a most modern being an electric calendar that conspicuously lights up green during safe periods and red during fertile periods. I was told that this worked well for a couple for sometime until the house fuse burned one night.

Our women are not too familiar nor too keen to know about other methods like the diaphragms, caps, jellies, foams and suppositories. In a recent personal survey of 1,000 women in Manila I found out that only 8.3% made use of artificial devices (not including IUCD which was still unknown to the subjects); 37% used abstinence; 26.9% used withdrawal; and 22.8% used rhythm. The reason appears

not to be primarily due to religious objections but also to the innate modesty of the Filipina who would blush at any suggestion to insert, and much less check up the correct application of any device inserted into the vaginal canal.

The last method I shall mention is the "withdrawal." It is practical, effective, and available at all times but it needs complete presence of mind which is not difficult to keep at the height of orgasm. Our studies show that it is the second most frequently used method among the low income group of couples.

THE CONTROL OF FERTILITY

by

The Committee on Human Reproduction
American Medical Association

In 1964 the Board of Trustees of the American Medical Association appointed a Committee on Human Reproduction with the charge that it "review the earlier statements of the AMA on contraceptive practices and prepare, for review by the Board, statements on this and other aspects of human reproduction." The last established policy statement relative to contraceptive practices had been made by the Association in 1938.

The Committee made recommendations to the Board which were subsequently approved by the House of Delegates as the policy of the AMA in the matter of population control as follows:

1. An intelligent recognition of the problems that relate to human reproduction, including the need for population control, is more than a matter of responsible parenthood; it is a matter of responsible medical practice.

2. The medical profession should accept a major responsibility in matters related to human reproduction as they affect the total population and the individual family.

3. In discharging this responsibility, physicians must be prepared to provide counsel and guidance when the needs of their patients require it or refer the patients to appropriate persons.

4. The AMA will take the responsibility for disseminating information to physicians on all phases of human reproduction, including sexual behavior, by whatever means are appropriate.

In accordance with the directive of the House of Delegates in 1937 that the AMA "undertake the investigation of

materials, devices, and methods recommended or employed for the prevention of conception with a view of determining physiologic, chemical, and biologic properties and effects and that the results of such investigations be published for the benefit of the medical profession," the Council on Drugs has for many years included a chapter on contraceptives in its annual publication, New and Nonofficial Drugs. Because of changes in the scope and mission of this publication, now designated New Drugs, the chapter on contraceptives was omitted from the 1965 edition.

The Committee on Human Reproduction, believing that such information should continue to be readily available to physicians, has prepared, with the authorization of the Board of Trustees, this monograph for distribution to physicians. It is hoped that this publication will help to implement another new policy of the AMA; namely, that the prescription of child-spacing measures should be available to all patients who require them, consistent with their creed and mores, whether they obtain their medical care through private physicians or tax or community-supported health services.

General Conclusions

The need for control of population, whether in nations or in individual families, is now recognized on a worldwide basis, and research is being intensified to develop methods that will not only be effective, but will meet the widely varying needs of individuals according to their religious beliefs, cultural mores, socioeconomic backgrounds, and intellectual and emotional motivations.

As a medical art, contraception is no more simple than any other -- indeed it has complexities entirely peculiar to itself. For one thing, it does not protect against illness or death (except perhaps in extreme cases), but against a quite normal physiological process. But failure of the physician to provide it or of the couple to avail themselves of it may result in the birth of a child under circumstances detrimental to it, to its family, or to the society to which the family belongs.

Furthermore, all but two of the medically accepted contraceptive measures (hormonal control of ovulation and intrauterine devices) involve direct or indirect interference with the sexual act, a characteristic that inevitably arouses resistance to their use. Finally, the concept that a child can be detrimental to the family welfare is foreign to many cultures and abhorrent to others, as is the notion that it is possible or even desirable to attempt a modification of anything so private and personal as the sex life of a couple. For all of these, as well as for religious reasons, it has taken American medicine a goodly number of years to accept contraception as an integral part of medical practice.

Indications and Contraindications

Contraception may be used in three ways: to postpone first pregnancy, to space between pregnancies, and to avoid pregnancy altogether. In almost every marriage (even when the couple strongly desires children), it is generally advisable to postpone pregnancy for at least a few months until some of the basic adjustments have been made. In youthful (teenage) marriages, postponement of first pregnancy is especially wise, since such marriages have been correlated with high rates of divorce; ie, the earlier the occurrence of pregnancy in the marriage, the higher the divorce rate. When the couple is over 20 years of age, postponement of first pregnancy should usually not exceed a period of two years in order that a pre-existing but unidentified infertility problem may be unmasked while the couple still has youth on its side. When the wife is over 30, postponement of a desired pregnancy for more than a few months is contraindicated because of decreasing fertility in women with increasing age.

Effectiveness

The most frequently asked question about contraception is, "What is the best method?" The only answer that can be given at present is that there is no such thing as a single best method, although in the foreseeable future a method might well be developed that would fulfill not only the three principal criteria--safety, effectiveness, and acceptability--but also the highly desirable ones of cheapness

and feasibility of application without medical supervision. Such a method would be particularly desirable if the benefits of family planning are to be made available to those parts of the world where physicians are a rarity and where contraceptive advice and direction is left to other authorities. Because there is no single "best" method, it is important for the physician to understand fully the pros and cons of all the methods presently available, and especially the importance of the relative acceptability of each method.

It should be remembered that safety and effectiveness of contraceptive products are evaluated during the process by which a product and its labeling receive clearance for contraceptive use by the US Food and Drug Administration (FDA). Safety must always be demonstrated before a new drug application can be made, and effectiveness is evaluated by the FDA on the basis of field trials carried on and reported by the manufacturers. Effectiveness is reported in statistical terms as the number of pregnancies per 100 woman-years of use or, more recently, as cumulative rates (on the principle of the life table). These, of course, are impersonal figures, and although the physician wants to be assured of a high degree of theoretical effectiveness, his main interest should lie in the effectiveness during use by the individual couple as a biological unit. Thus, the third criterion, acceptability, becomes of prime importance.

Acceptability

In simple terms, acceptability means the degree of consistency with which a couple will actually use the method. Many factors play a role in this, among them the following.

Basic Motivation -- Is the couple merely spacing between births or limiting the family? Are they seeking contraception spontaneously or in response to outside pressures (family, community, government)? Is their present number of children reasonably small or do they have so many as to sap their initiative and will to do? Is family planning accepted or looked at askance in their peer group and community? Are their social mores such that the man or woman customarily assumes responsibility for family matters?

Sexual Attitudes of the Couple -- Studies among working class couples have shown that success in family planning is apparently a function of satisfactory sexual relations, which, in turn, tends to be a function of the kind of sex education the couple received in youth. The ability of one or both of a couple to verbalize as to the status of their sexual relations may be helpful to the physician in assessing their capacity to carry out a contraceptive measure persistently and, hence, successfully. The converse may also be true: overemphasis on difficulties with some aspect of contraceptive practice, such as resistance to "messiness" of chemicals or to the manipulation necessary for inserting a diaphragm, may be an unconscious cover-up for sexual maladjustment.

Neurotic Interaction of the Couple -- No matter how sound the couple and their relationship, the fact remains that most individuals have at one time or another in their lives some neurotic attitudes, and in marriage it is common to observe the interplay of these attitudes either in conflict or very often in mutual satisfaction of each other's neurotic needs. It can happen, therefore, that the neurotic needs of a couple that on the surface seems highly motivated may in fact result in partial or total inability to practice contraception. With such couples, motivation is therefore at the intellectual or conscious level, with the subconscious or emotional level causing forgetfulness, loss of contraceptive supplies, or rationalizations as to why the method is unsuitable, dangerous, or disagreeable.

Socioeconomic Level -- The hard facts of lack of privacy and sanitary facilities can play havoc with the ability of the most highly motivated couple to use some methods. Lack of education also plays a role, but this is probably associated with socioeconomic factors rather than with any lack of intelligence, for the relatively complex method of oral contraception has been proved to be highly acceptable and successful among welfare patients of very low socioeconomic and educational status who rejected or failed with all previous methods.

Choice of Method

In guiding couples toward the choice of a method suitable for their special needs, the physician must apply his medical skill and judgment in a delicate balance between his own health goals for the couple and their family and their goals for themselves. He will be conscious of the need to maintain the quality of parentage and of the advantages of family life free from strain and harassment. He may prescribe any one of the several temporary methods in keeping with the couple's attitude and acceptance or, when such a course appears suitable, he may suggest permanent interruption of childbearing through surgical sterilization of one of them.

Nonsurgical Contraceptive Methods

In descending order of theoretical effectiveness are (1) oral hormonal control; (2) intrauterine devices (IUD); (3) mechanical devices; (4) foams; (5) creams and jels used alone, rhythm, and coitus interruptus; (6) other chemical methods.

Oral Hormonal Contraceptives -- The suppression of ovulation by the oral administration of progestogens, notably 19-nor-steroids either alone or in combination with ethinyl estradiol or the 3-methyl ether of the latter, has been under study since 1954. The literature on the subject has grown voluminous, and at present seven products in various dosage forms have received clearance from the US Food and Drug Administration for use as contraceptive agents (Table 1). Of these, five are "combination" products of estrogen-progestogen mixtures which are taken throughout the entire treatment period; the other two are "sequential" products in which estrogen alone is taken for 15 to 16 days followed by five to six days of combined estrogen-progestogen medication. Their method of administration is similar:

> One tablet daily, to be taken at the same time of day for 20 or 21 days of each cycle, beginning with Day Five (counting the first day of bleeding as Day One). Regularity of dosage is essential. Any

omission will reflect itself in increased rates of pregnancy or of breakthrough bleeding. The patient should be instructed that if she forgets to take her daily dose, she should take it as soon as she remembers it, even if this means taking it at the same time as the next following dose. With omission of a tablet for more than one day, she should be advised to finish out the remaining tablets but at the same time to use one of the more effective local contraceptive methods for the remainder of that cycle. If oral contraception is initiated in the middle of a menstrual cycle or in women with a history of irregular or short cycles, another method should also be used for the remainder of that first cycle. Patients should be warned to begin a new treatment cycle one week after their last tablet in cases of amenorrhea or failure of withdrawal flow.

The chief side-effects of oral hormonal contraceptives are spotting and breakthrough bleeding, nausea and vomiting, breast tenderness, and weight gain, but these usually diminish with successive cycles and can be minimized by adjustment of dosage or shift in products. Breakthrough bleeding can occur in as many as 25% to 30% of first cycles, usually diminishing in succeeding cycles. Some progestogen-estrogen combinations are claimed to be associated with a lower incidence of breakthrough bleeding than others, but there is also some evidence to suggest that these compounds are also associated with a higher incidence of amenorrhea or failure of withdrawal flow. The advantages of having several products available to choose from are obvious, offering opportunity to shift both dosage and product until the one best suited to the patient's physiological makeup is found. In any case, careful reading of labeling material is advised, because of the variation of proportions between progestogen and estrogen, and to treat breakthrough bleeding by simply giving two tablets may, while doubling the dose of progestogen, markedly overincrease the proportion of estrogen. If breakthrough bleeding persists, further investigation as to other causative factors is indicated so that coexistent pathology will not be overlooked.

The mechanism of action of hormonal contraception is through pituitary depression with failure of production of follicle-stimulating hormone (FSH) and luteinizing hormone (LH), thereby suppressing ovulation. The associated production of a hostile cervical mucus or acceleration of endometrial changes may also be antifertility factors. Because hormonal stimulation to growth of already existing fibromyomata may occur, a thorough gynecologic examination should be done as a routine before the initiation of treatment and again at six months. Vaginal and cervical cytology should also be obtained as part of the initial examination and repeated at least annually. To date, no increase in the incidence of malignant transformations has been reported in those women who were found to be free of pelvic cancer prior to taking the oral contraceptives.

The possible association of thromboembolic phenomena with the use of oral contraceptives has been reviewed by several committees, including one appointed by the FDA. None of these has found any significant correlation between the occurrence of thrombophlebitis and the use of norethynodrel with mestranol, which at the time of the investigations, was the only preparation cleared by the FDA and therefore under question. However, in order to allow for the unlikely occurrence of thromboembolic episodes, it has been suggested that women with previous vascular problems, varicose veins, or other factors which may predispose to thrombophlebitis should be watched carefully for any signs of thromboembolic problems or given another method. It should be pointed out that thrombophlebitis in the absence of endocrine therapy does occur in women within the reproductive age group.

Changes in liver function and cholestatic jaundice have occurred in women taking oral contraceptives. For this reason, the drugs are contraindicated in patients with either a reliable history or presence of hepatic disease or dysfunction. Likewise, the presence or history of breast or genital cancer are considered absolute contraindications to hormonal contraception.

There has been no evidence to support the belief that hormonal contraception has an adverse effect on meno-

pause. On the contrary, an increasing number of gynecologists are finding these drugs helpful and recommending their use for the regularization of the irregular menopausal cycle and the control of menopausal symptoms. For this purpose, administration is recommended for one year, followed by discontinuation for several months to see if spontaneous menstruation occurs. During this trial period a local method of contraception should be employed to minimize the possibility of a menopausal pregnancy.

Because of concern about possible long-term adverse effects of the oral hormonal contraceptive, the FDA presently limits administration from 1-1/2 to 4 years depending on the drug and the duration of experience with its use. Continuing studies of several large groups of women have been in progress for over ten years, however, and no evidence of long-term adverse effects has been shown. It is already clear that the use of this method of contraception has no effect on future fertility after its discontinuance. Indeed, there is some evidence that discontinuation of the oral contraceptive is followed by a period of enhanced fertility, presumably because of a "rebound" phenomenon.

The effectiveness of the oral contraceptives is virtually 100%, certainly the highest of any method short of surgical sterilization or total abstinence. The method has high acceptability, markedly so with population groups which have resisted or found unacceptable the local methods of conception control.

Intrauterine Devices -- The IUDs are still considered to be in the trial stage. However, the scope of the clinical trials to date is so extensive and the reporting and statistical analysis of these trials is of such high caliber, that the assumption of the imminent broad-scale use of the IUDs as a feasible and relatively safe method of contraception seems to be warranted. Since recrudescence of interest in these devices in 1959, two international conferences on their use have been held, and a cooperative statistical study has reported the results on effectiveness, acceptability, and side-effects in 11,222 women. After 85,782 months of use, 187 pregnancies were reported after insertion of an

IUD and prior to an expulsion noticed by the wearer or before the removal of the device. Additional reports from many other parts of the world include thousands of women. Present studies concern themselves with refinements of size and design of the devices to enhance their effectiveness and reduce the incidence of such side effects as expulsion, metrorrhagia, menorrhagia, and pain. Four major design modifications are presently in use in this country, developed concurrently by different investigators: the Margulies spiral, made of polyethylene; the Lippes loop, a double S of polyethylene; the Birnberg bow, also of polyethylene; and the Hall stainless steel ring. The latter two are entirely intrauterine. The first two include a short appendage which allows the women to feel for the continued presence of the device.

At present the mode of action of the IUDs is not clear. Endometrial changes associated with the presence of the device appear to be limited to increased edema and vascularity, with no evidence of preclinical abortion. Sperm migration is normal. Possible changes in uterine and tubal motility have been suggested. The lower than expected incidence of tubal implantation in such pregnancies as has occurred is suggestive of a mechanism that involves more than the uterine environment.

In their present forms the IUDs are considered to be suitable for the parous but not the nulliparous woman. Thus, for most patients, insertion is accomplished without dilatation. Insertion toward the end of a menstrual period is advised to avoid interference with a possibly preexisting pregnancy. Furthermore, introduction is easier at this time because of cervical changes, and postinsertion spotting, which is fairly common, is more readily accepted by the patient merely as a prolongation of the normal period. Studies on early postpartum insertion are promising. Each device has its own specially designed inserter.

Selection of patients is important: those with active pelvic infection or with a history of repeated pelvic inflammatory disease should be excluded. Fibromyomas which might distort the uterine cavity are also a contraindication,

as is any abnormal bleeding which should be investigated and corrected before insertion.

The actual insertion of an IUD is not difficult, but since it usually involves sounding of the uterus and determination of uternei position, it is desirable that this procedure be done by those with some training or experience in gynecology. Directions for insertion and removal are available with each type of device. Those with cervical extensions are easily removed by the patient herself. Studies done after removal of the device have shown that conceptions follow at the expected rate of approximately 87% in one year.

Difficulties can be expected with the IUDs, but they are not uncontrollable. Expulsion occurs most frequently during early months of use, and when unnoticed, as is the case in about 20% of all expulsions, the pregnancy rate is naturally increased. The rate of spontaneous ejection varies according to the type and size of the device. In the pooled statistics so far reported, expulsion rates have been as follows: spiral, 21.8%; loop, 9.3%; bow, 1.1%; and ring, 15.8%. Reinsertion after first expulsion should always be tried, since in many women there will be success with the same or a different device on a second or third trial.

Bleeding after insertion is almost to be expected but rarely necessitates removal. Pain of a crampy nature is also a frequent initial side effect but is usually not severe enough to require removal of the device. In the pooled statistics currently available, approximately 5% to 10% of devices were removed because of bleeding or cramping or both. However, some women with dysmenorrhea may report considerable and permanent relief.

The effectiveness of the IUDs, in the pooled statistics reported to date varies. The cumulative pregnancy rate after one year per 100 insertions ranges from 1.8 for the spiral to 7.5 for the ring, with an overall rate of 2.6 for the over 10,000 women now under cooperative study. The acceptability of the IUDs ranks very high, if the woman can wear it without difficulty. Its most obvious advantages are

cheapness, elimination of all connection with the sexual act, and especially elimination of need for any responsibility by the wearer except to verify its continued presence. The rare cases in which a husband complains of sensation from the cervical segment of the device can be corrected by replacing it with one that is entirely intra-uterine. There is no reason to believe that the device cannot remain in place indefinitely or as long as conception control is needed. It should be removed after menopause. Where occasionally a pregnancy is superimposed on the use of the device, procedure to term with the device in place usually follows, with normal birth and a normal child.

It can be concluded that the intrauterine devices constitute a method of conception control that is highly effective, immediately reversible, and essentially safe. It is expected that the frequency of problems associated with their use will decrease with changes in their design and possibly in their constituent materials.

Local Methods -- These are designed to interpose a barrier between sperm and the cervical os. The barrier may be entirely mechanical (condom), mechanical plus chemical (diaphragm or cervical cap plus spermicidal cream or jelly) or chemical (foams, creams, and jels used alone, foam tablets, suppositories, foam and sponge). All of these methods vary rather widely, not only in theoretical effectiveness, but in their use effectiveness because of the wide range of their acceptability.

Condom. The sheath or cover for the penis worn during coitus is undoubtedly still the most widely used artificial contraceptive method, not only in the United States, but throughout the world. Its use is far more often self-sought than obtained through medical sources except when the latter promote its use for the control of venereal diseases. In effectiveness it ranks with the diaphragm and cervical cap over other local methods, but although it costs little and is widely available, its greatest use is most probably outside of marriage. There is considerable feeling by both sexes that it interferes with full sexual sensation; nevertheless, because of its easy availability all couples should be

aware of its reliability for use when another method for some reason is not available. Reliability is further enhanced when use of the condom is combined with the use of jelly, cream, or foam by the woman.

Diaphragm or Cervical Cap with Chemical. Both of these methods have interesting historical backgrounds, because for obvious reasons the medical profession has always had to be involved with their development and prescription. The cervical cap has never been much used in the United States; it has, however, enjoyed considerable popularity in Germany and Great Britain.

By contrast, the diaphragm plus a chemical has until fairly recently been the most popular method of contraception in the United States--popular, that is, with physicians and with the relatively elite group to which it was available and that could use it. There is no question as to the reliability of the diaphragm when it is used consistently by women who have been taught to check for correct placement after its insertion and to leave it in place for a minimum of six hours after coitus without douching. There is also no question as to its relative nonacceptability, particularly with people of low socio-economic or educational status. Diaphragms with modifications in the spring rim which give an arc configuration are available and these sometimes make insertion easier and make the method more foolproof. Although the usage of the diaphragm is expected to continue to decrease as the newer, more effective, and more acceptable methods develop in scope and variety, it should be remembered as an ideal interim or alternate method, or for occasional use --ideal, that is, for those of high motivation and the background to use it.

It is important to realize that the creams or jellies that are to be used with the diaphragm or the cervical cap are not those that have been designed to be used alone.

Chemicals Used Alone. The FDA has up to the

present cleared for contraceptive use without any mechanical device, two foams, ten creams or jels, two foaming tablets, and one suppository. These products do not require the prescription of a physician. That they vary greatly in their in vitro spermicidal activity has been determined by actual tests. It has not, however, been possible to establish what the relationship is between this variation in vitro activity and their effectiveness under clinical conditions of use. The fact that the development of the vaginal foams coincided approximately with the advent of the first oral contraceptive and the developing contraceptive sophistication of both the medical profession and the public made it extremely difficult, if not impossible, to find groups willing to risk pregnancy in double-blind tests of vaginal products that would be large enough to yield statistically significant results. Such studies as have been made, some as yet unreported, coupled with direct observations of the chemicals on the cervix under conditions of active artificial coitus, have afforded relatively firm grounds for ranking the chemicals used alone in the following descending order of effectiveness:

1. Foams. Without question these have the highest acceptability, and in all probability the highest effectiveness, of any of the chemicals used alone. They suffer least from complaints of "messiness" by users and would appear to be a most excellent method to have in reserve -- for instance in case of breakage or slipping of a condom.

2. Creams and jels. Although some of these products probably equal the foams in effectiveness, they all nevertheless rank lower in acceptability because of postcoital "leakage." The difference in adequacy and maintenance of cervical coverage in the face of active or repeated coitus, as between the creams and the jel types, has been observed and reported. Both are also more expensive than the foams due to the fact that their dosage weight is higher. It is important to encourage women to try several products, as acceptability will partially depend on the amount of natural vaginal lubrication accompanying sexual arousal as well as subjective factors.

3. Foam tablets, sponge and foam, suppositories. Most of the evaluative work on these methods is extremely scanty because there has never been a great deal of interest in them nor much belief in their reliability.

Studies involving direct visualization of the vagina and cervix have clearly shown the reasons for the relatively low effectiveness of foam tablets and suppositories; both have characteristics in use that would explain a relatively low acceptability. It is therefore surprising that the suppositories continue to enjoy such wide use. This is undoubtedly because advertising in the popular press of suppositories for "feminine hygiene" has been couched in terms that would lead the unsuspecting reader to believe that they were also effective as spermicides. Although the feminine hygiene products have not been cleared by the FDA for use as contraceptives, many women are unaware of this and confuse them with the one brand of suppository that has received clearance for contraception.

The sponge and foam method is of such a primitive nature by comparison to the far more sophisticated applicator-type chemicals as hardly to appeal to the average user. It is very cheap, however, as is the foam tablet; these two are probably the cheapest of all of the methods using chemicals alone. Because any method of birth control will exert some depressing effect on birth rate as compared to no method at all, these two methods which are susceptible to distribution by nonmedical personnel in remote and primitive parts of the world might conceivably have a place -- at least until such time as more effective and acceptable but equally cheap and easy-to-distribute methods are developed.

Postcoital Douche. This cannot be dignified as a method of contraception and is mentioned only to be dismissed. In the first place, sperm have been demonstrated postcoitally in the cervix within seconds of ejaculation. Second, its use within six hours after intercourse when other methods such as foams or creams have been utilized for contraception will in all

probability interfere with their effectiveness. Finally, if anything should be used following unprotected coitus, it should be one of the foams or creams, not only because they are highly effective but because it takes far less time to load and discharge an applicator with one of them than it does for the woman to get up and go through the ritual of a douche.

Rhythm Method -- This method is based on rhythmic occurrence of fertile and infertile days during the menstrual cycle and on the avoidance of intercourse at the time the woman is most likely to conceive.

Prerequisites. Several prerequisites must be met to make the method successful: (1) Both partners must agree to forego intercourse at certain times; (2) Accurate records of the length of each menstrual cycle for the preceding 12 cycles must be maintained; (3) Each cycle should be counted from the first day (Day One) of bleeding to the last day before the next menstrual period begins; (4) The couple should be aware, at all times, of which cycle days are considered fertile and where they are in the cycle.

Determination of the Fertile Time. It is generally agreed that ovulation occurs about 12 to 16 days before the next period and an allowance of one day's life span for the ovum must be made at the end of the fertile period. Sperm is probably capable of fertilizing an ovum for at least 48 hours and allowance must be made for this at the beginning of the fertile period.

Remembering these facts together with the knowledge that the length of the cycles vary, the safe and fertile times may be calculated from a formula as follows: The shortest cycle minus 19 days equals the safe days from Day One of the cycle. The longest cycle minus ten days marks the beginning of the safe days at the end of the cycle. For example, if the cycles vary from 28 to 33 days, then 28 minus 19 equals 9, which means that Days One to Nine are safe, and 33 minus 10 equals 23, which means that Days 23 up to the next period are safe. Thus, Days 10 through 22 are fertile.

Basal Temperature Method. This is a refinement of the rhythm method and is based on the fact that progesterone is produced starting near the time of ovulation and that circulating progesterone raises the basal body temperature. The safe and fertile times are determined as follows:

Daily temperatures are taken in the basal state, ie, before rising each day prior to any activity and at approximately the same time daily. Temperatures may be taken either orally, vaginally, or rectally provided the same method is used throughout the cycle. A rise of 0.5 F (approximately 0.3 C) indicates that ovulation has occurred. After the temperature rise has been sustained for three days, it is then safe to have intercourse until the next period begins. It is also necessary to refrain from intercourse for a safe time before ovulation (at least 48 hours). As previously stated, this may be determined by subtracting 19 days from the length of the shortest cycle of the preceding 12 cycles. If the shortest cycle is 27 days, then 27 minus 19 equals 8; therefore Days One to Eight are considered safe. The patient shall abstain from intercourse from Day Nine until the basal temperature has risen 0.5 F and the rise has been sustained for three consecutive days.

Reliability of the Rhythm Method. This will depend to a large extent on the motivation and dedication of the couple using it. The more chances taken, the greater the likelihood of pregnancy.

The most reliable variation of the rhythm method is the use of the basal temperature method with intercourse limited to the interval after the rise in temperature. The failure rate with this is 5/100 years whereas with intercourse prior to the temperature rise the failure rate is 9/100 years. If the temperatures are not taken and the calendar method alone is used, the failure rate is 15/100 years, or three times as high.

Coitus Interruptus -- This method is of genuine hisical interest, for until the popularization of the condom

and other methods, it served certain countries of western Europe very well, as attested to by their low birth rates. Ireland is probably the only country whose low rate of population increase is not the result of this method but rather of late or nonmarriage or emigration.

Coitus interruptus is also fairly widely used in the United States. Objective consideration of it as a method would seem to indicate that if it is practised in such a way that both husband and wife obtain full satisfaction and find it acceptable, there is no reason to try to change them to another method except on the grounds of relative effectiveness. Because this probably lies in the same range as that of the creams and jels used alone, a couple with serious reasons for postponing or avoiding pregnancy should be made aware of this fact.

In addition, because it costs nothing and is always available, this method should be taught to all for use on those occasions when no other method is available. It should be borne in mind, however, that even if withdrawal is successfully accomplished before ejaculation, it may have been preceded, unknowingly, by release of sperm-containing mucus. For many couples, this method is a source of anxiety in their sex relationship.

Other Methods Under Investigation -- Other methods of contraception with promise for the future are currently under investigation -- some already at the stage of clinical testing. These include such methods as suppression of ovulation for varying intervals by injection of estrogen-progestogens at monthly or even longer intervals, suppression of spermatogenesis by systemic medication, immunologic suppression of fertility in the male, predictable production of ovulation, and prevention of nidation by drugs taken postcoitally.

Summary

The methods discussed to this point are those which are accepted throughout the scientific world as the best ones presently available for the regulation of conception and which do not interfere with subsequent fertility. In-

creasingly, many of these methods are being prescribed in tax-supported medical facilities, thus making available to those of low socioeconomic status the advantages of child spacing and family planning that were up to very recently available only to the comparatively well-to-do.

Surgical Sterilization

Medical opinions concerning proper indications for surgical sterilization of either sex range all the way from absolutely none at all to a list which includes the following: (1) afflictions of a hereditary nature involving previous offspring of the marriage or, in some instances, the hereditary involvement of one or both actual or potential parents; (2) conditions in the mother that may be aggravated by repeated pregnancies; (3) physical, mental, or emotional defects which may seriously impair the functioning of either husband or wife as an adequate parent or which cause the physician to conclude that parenthood at any future time would be hazardous or both; and (4) multiparity to a degree affecting adversely the woman's health or well-being.

That state laws regarding sterilization are not only different, but have been interpreted differently, has added to the confusion regarding the legal status of sterilization. Likewise, concern has been expressed regarding the possibility of untoward after-effects of a psychological nature, particularly if remarriage or death of already-born children creates a desire for additional offspring. Hence, it would seem desirable for the medical profession to arrive at a consensus regarding sterilization that would provide solid ground for performing it where it appears indicated. At the same time, the development and improvement of present methods and the advent of new methods of contraception should, if properly understood and widely applied, serve to diminish the need for permanent contraception by means of surgical sterilizing procedures.

TABLE 1 - ORAL CONTRACEPTIVE PRODUCTS

Oral Hormonal Contraceptives (Combination)

Trade Name	Composition		Manufacturer
Enovid	9.85 mg	norethynodrel + 0.15 mg mestranol	G. D. Searle & Co. Chicago
Enovid	5 mg	norethynodrel + 0.075 mg mestranol	
Enovid-E	2.5 mg	norethynodrel + 0.1 mg mestranol	
Norinyl	2 mg	norethindrone + 0.1 mg mestranol	Syntex Laboratories, Inc. Palo Alto, Calif.
Norlestrin	2.5 mg	norethindrone acetate + 0.05 mg ethinyl estradiol	Parke, Davis & Co. Detroit
Ortho-Novum	10 mg	norethindrone + 0.06 mg mestranol	Ortho Pharmaceutical Corp. Raritan, NJ
Ortho-Novum	2 mg	norethindrone + 0.1 mg mestranol	
Provest	10 mg	medroxyprogesterone acetate + 0.05 mg ethinyl estradiol	Upjohn Company Kalamazoo, Mich.

Oral Hormonal Contraceptives (Sequential)

C-Quens	0.08 mg 0.08 mg	mestranol (15 tablets) and mestranol + 2 mg chlormadinone acetate (5 tablets)	Eli Lilly & Co. Indianapolis
Oracon	0.1 mg	ethinyl estradiol (16 tablets) and ethinyl estradiol + 25 mg dimethisterone (5 tablets)	Mead Johnson & Co. Evansville, Ind.

THE GROSS NATIONAL PRODUCT

Quijano de Manila*

THE BOMB that's blowing up the world right now is not the A nor the H but the P-Population.

By the end of this century the world's population, unless checked, will have increased from the present three billion to seven billion; and in another century there will be more than 14 billion people on earth!

By that time, say the gloomier prophets, all thought of personal liberties or popular government or democratic rule will be the vanity of vanities. With people massed so densely on every inch of ground regimentation will become inevitable--a regimentation so desperate every morsel of food, every drop of water, will be measured out in rations; and no man may move about freely lest collisions in a crowded world result in riot, chaos and amok.

It will indeed be One World at last, for some kind of central universal government will have to take charge of the earth's resources and to control men's actions, telling each one when to eat, when to drink, when to work, when to sleep, when to breed, when to die. With space at a premium, the infirm, the unusable, the aged cannot be allowed to clutter up valuable room; and whoever adds, save under orders, one more mouth to a packed and famished world will be guilty of the hugest crime of all.

Man may then look back on the H-bomb as a blessing rejected. Would that bomb had been exploded and earth emptied of life at a stroke! Already today, though unac-

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*Quijano de Manila is the pen name of Mr. Nick Joaquin, foremost Filipino novelist, writer and poet. This article is reprinted from the Philippines Free Press, January 22, 1966 (No. 4, Vol. LIX).

knowledged, springs a sigh for the old plagues and wars as blessings in disguise, because they kept the population down. Today's healthier world is increasingly a hungrier world: there is less and less for more and more. Equal distribution between haves and have-nots is at best a stop-gap measure, for the have-nots multiply so fast they could gobble up everything the haves have and bring on not equal wealth but total poverty. Pharaoh's dream in the Joseph story could be a warning for our times.

The immediate, the obvious solution is population control. Man must will that solution today or lose all right to will anything at all tomorrow. Unless he voluntarily disciplines himself now, as a person, he will be made to do so later, as a cog. And for once in his history he faces a crisis he need not curse as fate or submit to as destiny. He can change his fate, he can make his destiny, for science, which created this problem by disarming death, now provides the means, the peaceful means, to stop the swell in mournful numbers that threatens to reduce mankind to the level of animal subsistence. A spacious world can afford to dabble in art and philosophy, but not an overcrowded one, if it's hard put just to stay alive.

All other human problems cannot but pale when set beside this one, which is what should be occupying the world today, since we have no need to imagine future horrors to fear the bane of over-population. All we need do is look around us. Despair is the climate of the underdeveloped because even before they have succeeded in raising food enough for what mouths there are, the number of mouths has doubled. Poverty is a wall we cannot hurdle because we ourselves keep making it higher. And all the ills we bewail--high prices, shortages, unemployment, crime, social unrest--spring from this basis disorder: the human glut.

Yet population control is still more or less a taboo topic. The Philippines has a censorship law that forbids such information on the screen. Various Latin-American countries--Puerto Rico especially--are in dutch with their churchmen because the State sanctions contraception. And

even the United States had a teapot tempest when Washington seemed to suggest that the underdeveloped peoples needed birth-control information more than they needed aid.

Happily, the old prudery is yielding to historical imperatives. Gandhi is said to have been against contraception; but the civic hero in India today is the man who voluntarily gets himself sterilized. A political party in Puerto Rico that made an issue of opposing the government's birth control program was trounced in the last elections. The Vatican Council reopened the question of birth control and, though its pronouncement on this matter may seem to be a restatement of an old position, the mind of the Church, it can be said, is still open--and the minds of the faithful have certainly been opened. Not even the most catolico cerrado will dare equate piety with yearly pregnancies.

In the Philippines, last year, 1965, may go down in history as the start of a new cultural phase, of a social revolution. Through the sound and fury of the election campaign, a small band of pioneers quietly conducted another, more far-reaching campaign, bringing to the masses the techniques of contraception, hitherto a status symbol marking out the educated classes. Leading this band of pioneers is a modern culture hero, Dr. Gregorio G. Lim, who being of Tondo, where he runs a hospital, knows how desperately the masses need to be saved from their own fecundity; knows how, in teeming Tondo, abortion has become so flagrant there's an abortionist in every corner; knows how many poor mothers, not wanting another unfeedable child, themselves induce a miscarriage by perforating the uterus.

In December, 1964, Dr. Lim helped organize, and was president of the Tondo Family Planning Center, which opened a clinic at the Mary Johnston Hospital. This group drew so great a response it decided to widen its scope; and in March 1965, it became the Family Planning Association of the Philippines, a national non-sectarian and non-political organization affiliated with the International Planned Parenthood Federation. The officers of the association

with Dr. Lim again as president, were inducted into office in June, by Mayor Villegas.

In its first ten months the Family Planning Association has branched out into chapter groups all over the country and established 25 clinics, where the public is given marriage counselling and educated in the various modern contraceptive methods, from rhythm to pill to the intra-uterine device. The propaganda campaign carries association members to town and hinterland, to distribute pamphlets, organize seminars, deliver lectures. The tireless Dr. Lim for instance, fulfilled 35 speaking engagements in seven months, mostly in the provinces. The campaign has aroused so much public interest association members say that family planning and the population problem have become the most talked about subjects today; and philanthropists are beginning to donate to the cause, so the association can conduct research on birth control and send fellows abroad for training. More clinics need to be set up but they will require more trained personnel to man them.

Wednesday last week, in Manila the association co-sponsored with the National Institute of Science a seminar on family planning that showed how far the subject had advanced from taboo to topicality. Dr. Mercedes Conception of the U. P. graphed in statistics the awesome drive of the Filipino's sexual energy. Dr. Lim traced the history of birth control; Dr. Ruben Apelo of the Philippine General Hospital discussed the medical aspects of contraception, and Dr. Juan Flavier of the Rural Reconstruction Movement narrated his hilarious adventure while bringing the idea of birth control to the barrios.

One of the speakers, Fr. Vicente San Juan, S. J., while protesting admiration for the movement and its apostles, wondered whether in accepting the techniques of contraception we may not be accepting a philosophy implied by those methods that could have disturbing effects on our society. The caution was well-intended but comes rather late in the day. What did we embrace when we embraced the machine, the train, the motorcar, the radio, the refrigerator, the machine gun, the jet plane, the wonder drug? If we did not

know at the beginning, we certainly know that each new tool we accept radically changes us and our thinking and our manners and our morals and our way of life; but to warn against a new technique on the ground that it may turn our society upside-down seems odd advice to a country that's precisely trying to revolutionize itself.

Are we to strain at the gnat of The Pill after swallowing the elephant of Science?

FROM THE CITY

Strain indeed we will have to, and have little to swallow, unless we call a halt to unlimited procreation. Our birth rate is one of the highest in the world, if not the highest: 3.2% or from 45 to 50 births per thousand annually and we are increasing at the rate of almost a million babies every year! This is our Gross National Product. We are at present 32 million strong--and already cannot find full employment for our total labor force, nor industrialize because so much of our efforts must go into just keeping produce abreast of the swell in population, a major portion of which is, because of the high birth rate, always in the dependent, non-productive ages of infancy and childhood.

Over 32 million Filipinos today, and it will take only another two decades to double that number! Where will the the jobs be found for those extra-million or the space to stand on? Even at our present 32 million, our population density in relation to land area (all we have are 115,000 square miles) is already, says Dr. Mercedes Concepcion, "four times the world average and above that of Europe, Asia, and even Southeast Asia as a whole." We are already packed closer than other people; but this, says Dr. Concepcion, is not what's so alarming: "The critical aspect of our population is not its absolute size but its extraordinary rate of natural increase."

Sexual energy only partly explains the "extraordinary rate", cultural factors are also responsible.

"Religious training," says Dr. Concepcion, "encourages high fertility and the Church still exerts a dominant influence over the woman. The male, especially among the lower classes, welcomes children as a sign of virility." Moreover, Filipinos are not the migrating type and they marry young: the median age for marriage of the Filipina is 19.3 years, which means a very long child bearing period. "Underlying these and similar inducements to high fertility is the importance of the family as a unit of social structure. If to this we add widespread poverty, we find all the ingredients for high fertility."

An old local joke is that the lack of electricity and entertainment in the barrios explains the multitudes of barrio babies: the rural folk have nothing else to do at night.

Dr. Concepcion applauds the efforts of the Family Planning Association and notes with relief that the campaign has reached "the frame of official Catholic teaching." (a rhythm clinic has been opened at Santo Tomas; convent-school girls are being seminard on family planning) but sighs that "there's a long distance between pre-pregnancy or 'family planning' clinics and a national movement of sufficient magnitudes to bring about a reduction of the nation's growth rate:

"As the movement progresses, the actions of individuals will be strongly influenced by the attitudes and behavior of their neighbors and friends. Strong action by the national government in promoting an understanding of the national and personal issues in this field, and in facilitating the implementation of personal decisions is probably a pre-condition to any movement of sufficient scope to have much effect on actual population trends."

In other words, the government should start a bandwagon.

This should be hard to do, for a Bureau of Census survey taken way back in 1963 already showed that Filipino wives <u>wanted</u> to limit the number of their children; 85% of 7,807 women interviewed considered five children already

too many. This was two years ago which means that the current movement is an explosion into the surface of an old underground seethe.

Dr. Ruben Apelo recalls that in 1961 he attempted a series of symposiums on Family Planning; "Before long we realized that it was not yet time to forge ahead and we had to accept defeat, "but the lack of response was not, he felt, due to a lack of interest: "As a gynecologist-obstetrician I know, as my co-specialists know that every pregnant woman dislikes giving birth year after year. They want spacing, but they are too shy to take advice or too naive to know that medical measures can be easily be instituted to lengthen intervals between deliveries or to suppress them altogether. We felt it would not be long before couples decided to seek advice openly. It came sooner than I expected. At present, only four years later Family-planning services are being offered and, in some clinics women stand in line for this much-needed advice."

Response is greatest in urban areas, but Dr. Gregorio G. Lim believes the urban example will be quickly picked up by the rural folk:

"Experience abroad shows that a house-to-house campaign directed more to urban than to rural areas accomplishes more. Urban people are more susceptible to family planning. The rural people then follow whatever changes occur in the urban area."

TO THE BARRIOS

Dr. Juan Flavier of the PRRM, however has found the rural folk just as eager to be instructed in the new techniques. When he opened a mother's class in one barrio he expected the women to ask him how to have healthier babies:

"To my amazement, the first question asked were about family planning. 'Ang problema ko po,' said one woman, 'ay ang asawa kong si Julian. Titigan ho lang ako, yari na.' And another woman said: 'Ang problema ko rin

ay si Ambo. Hakbangan lang ako, yari na.' I said: 'Anong hakbang-hakbang. Siguro huminto sa gitna!' In time I noticed the frequency with which questions on birth control were asked, generally accompanied by a plea for a remedy. It was ironic that we were not supposed to mention birth control, in the belief that our people were not ready; and yet here they were asking me for help. I found myself groping for a correct answer. What do we tell these women?"

Women who seek birth-control advice, says Dr. Apelo, can be classified into two groups: those who have heard about family planning and wish to know which method is best for them; and those who have already chosen a method and wish to be helped in its proper implementation.

They come with average knowledge of the method of their choice but invariably ask a lot of questions." The questions are usually about the oral pill and the intra-uterine device; "Our women are not too keen to learn about other methods like diaphragms, caps, jellies, foams and suppositories. In a recent personal survey of 1,000 women in Manila I found that only 8.3% made use of artificial devices: 37% used abstinence; 26% withdrawal and 22.3% rhythm. The reason appears not to be primarily religious objections but the innate modesty of the Filipina, who would blush at any suggestion to insert, much less check up the correct application of, any device into the vaginal canal."

Dr. Apelo is doubtful about the rhythm method, which obliges women to find out, mark out, and remember their monthly "safe" and "fertile" periods:

"Studies have shown that when the method is followed strictly one can expect a theoretic effectiveness of about 90% for a period of four years. Unfortunately, theoretic effectiveness is not the same as effectiveness in practical application. Failure is high, not because of erroneousness in the method but because of the difficulty of implementation. As a guide, gadgets and devices have been conceived, a most modern one being an electric calendar that flashes green during safe period and red during fertile periods. I

was told that this worked well for a couple for some time until the house fuse blew out one night!"

But because it's the method approved for Catholics, rhythm is the method Dr. Flavier is propagating in the barrios, and he had devised his own gadget: a string of green and red buttons to denote "safe" and "fertile" days. This system has one defect: "I had overlooked the fact that there's no electricity in the barrios. And in the darkness one cannot distinguish between green and red buttons; both appears black. A farmer told me banteringly: 'When we are in doubt in the dark as to whether the day's button is green or red, we always give ourselves the benefit of the green!"

More than gadgets, what the family planning movement needs, say Dr. Flavier, is a simple native terminology that can be understood by the common folk:

"I once had occasion to ask a group of authorities on family planning how they said birth control to barrio people. It was disconcerting to note that not one could render the term in the dialect yet all were engaged in teaching birth control to dialect-speaking Filipinos. What terms are used in each barrio or locality should be adopted, so one can communicate in a language and on a level the people understand. In some barrios in the Central Plain, for instance, the phrase pagpipigil sa panggigigil means birth control. The English translation would be something like to stop gritting your teeth--which doesn't sound anything like the original to us. But it's the term the barrio people use and, by all means, should be the term to explain birth control."

"Again it is inconceivable to teach farmers birth control unless we have a way of explaining adequately and effectively the Anatomy of the human body and the physiology of fertility and conception in the human being. To say Ovum and Sperm, Ovary and Testes, may be scientific but isn't quite effective. My experience is that the most effective way of describing the formation of a baby is to use agricultural terms, delineating a parallel in seeds, plants, soil, and crop growth. The best way to communicate the

idea of sperm and ovum, in my experience is to call them seeds in general or what we call in Pilipino similya. The best way to drive home the concept of the womb is to create a parallel between soil and matris. Then the cyclical periods of the woman--why she is liable to pregnancy on some days and on other days not--can be easily explained in terms of seasonal crops--onions, for example which can be planted only after the Undas or All Saints Day if they are to produce."

Dr. Flavier says he's giving the barrio folk he serves everything about birth control--"except the actual demonstration."

Listening to him, one is indeed impressed by the rapidity with which what was once taboo has spread over the country in the space of a year, so that awareness of it seems to be growing simultaneously in both urban and rural areas.

But because of its newness, Dr. Gregorio G. Lim fears that the subject is still often misunderstood:

"I wish the term birth control were not used when we discuss birth spacing, because birth control could also include abortion, which is becoming more rampant today, especially in Catholic countries, a very paradoxical situation. Family limitation is another expression out of place if used without reference to specific methods, because it could be understood to mean also infanticide and the killing of the aged and the weak, as was done in olden times--and who knows whether it's still done today. Contraception is the more correct term, because it means the prevention of conception or pregnancy, and this is one of the services offered by the program of the family-planning movement. But its various efforts to promote the well-being of the family are misunderstood as just a collective effort to promote birth control."

The prime objective of the movement is responsible parenthood: one must have only the children one can properly feed, clothe and educate. This is obviously an idea

that needs spreading in the Philippines, for irresponsible parenthood creates the Gross National Product that impoverishes instead of enriching us, filling our streets with those ragged starvelings who root in the garbage and sleep on the pavement. These are the Bomb on which our society uneasily sits.

Says Dr. John Rock, who invented The Pill:

"The greatest menace to world peace and decent standards of living today is not atomic but sexual energy."

Today's hot war is between the Pill and the Phallus.

HISTORY OF FAMILY PLANNING

Rita M. Gerona-Adkins*

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Family Planning is not an invention of modern man. While it may not have been called family planning, the practice of it--limiting the increase of children--dates back even to prehistoric times.

Even in those ancient times when the relation between sexual intercourse and the birth of a baby was not yet realized, primitive races were known to have practised means of limiting their own population increase. Intercourse then was practised by girls from puberty onwards, but when pregnancy occurred, it was thought to be due to some magic. To prevent the effect of this "magic", primitive man resorted to rituals, incantations, charms, and the taking of bad-tasting and often revolting medicines. And when the unwanted baby was born, it was sometimes killed at birth or neglected to die. It is also possible that some medicine-men and wise women know crude methods of abortion.

This practice of infanticide, as a means of limiting population increase, was recorded to have been practised in the ancient societies of Japan, China and Greece. It is recorded for instance, that Japan, during the days of the Tokugawa Shogunate, for a period of 250 years, from 1603 to 1867, maintained its population to a level of about 30 million by practising "mabiki" or infanticide, and induced abortion. This harsh and drastic measure was to disappear in 1868 with the restoration of Emperor Meiji into power.

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When it was realized in ancient societies that intercourse had something to do with pregnancy and birth of a child, various methods were invented with the hope of preventing conception. It was thought that if a woman sneezed or coughed hard after intercourse she would be able to expel the man's liquid from inside her. Vigorous abdominal movements, which characterize primitive dance rituals, were also practised with the same end in view. Drinking cold water at the same time was also thought to lessen chances of pregnancy. It is also probable that coitus interruptus has been commonly practiced since very early times. It is even mentioned in the Bible, (Genesis, Chapter 38) what was to be known later as the Sin of Onan.

In some places, people still use some rather primitive methods. In a tribe in Tanganyika, women go to the river banks on moonlit nights, pick the whitest pebbles they can find and swallow them. This practice was shown in the movie, Mondo Cane, hence apparently is still in existence. Another primitive method believed to prevent conception is still used in very backward places in India where cow dung is burned, pounded into powder form then mixed with water and drunk like medicine. Another crude method used in India is the insertion into the vagina of a fine but durable pine-tree needle.

An ancient Egyptian document written in papyrus in 1550 B.C. contains one of the earliest records of birth control methods. It suggests that a pellet of honey or grease should be inserted into the female organ before intercourse, or that the female organ should be douched with solutions of various chemicals afterwards.

One common practice of the ancient Greeks, Romans and Hebrews was inserting a plug made of wool or some other spongy substance soaked in honey or oil into the female organ. Records also show that Soranus, a Greek in the first century A.D. recommended contraception rather than abortion because as he reasoned out "it is safer to prevent conception from taking place than to destroy the foetus".

The forerunners of more modern methods of birth control measures may be perhaps traced to the Renaissance period. In the 16th Century, a book was published in France which recommended douching, withdrawal and sheats. Sheats, which were the forerunner of the condom, were first used in Italy at about this time and were made from fine linen at first and later from the intestines of animals. Because they were also used as a protection against venereal disease, they became associated with illicit and extra-marital intercourse and so acquired a rather bad reputation which still lingers to some extent today. It was only in the middle of the 19th Century when these sheats were made of rubber, hence they became much more reliable and popular and have continued until the present day as one of the most widely used and safe methods of birth-control.

The Industrial Revolution at the end of the 18th Century was to lure more and more people to live in towns and this, accompanied by high birth rate, led to alarming conditions of congestion and poverty. One of those who became so alarmed and who was to make tremendous contribution to the awareness of population problem, was Thomas Malthus, a clergyman and one of the early pioneers of the science of economics. In 1798 Rev. Malthus published "An Essay On the Principle of Population As it Affects the Future Improvement of Society". Struck by the rapid increase was so much faster than that of food supply, mankind was breeding itself into starvation and unendurable poverty. He warned that unless population growth is curbed, there will be war, crime, poverty, vice and general human misery. Hence, Malthus advocated his own idea of population restriction--late marriage and sexual abstinence.

Other social reformers of the times, reacting to the same social conditions brought about by changes of industrialization, began to disseminate information about birth control methods. In 1820 a social reformer called Place urged the working classes to regulate the size of their families in a pamphlet titled "To The Married of Both Sexes" which gave practical advice on birth control. Richard Arkle also wrote "Every Woman's Book of What is

Love?", which was later known and criticized by conservatives as "Diabolical Handbills". Arkle recommended the soft rubber sponge method.

Despite the conservatives' criticisms, literature on birth control, apparently demanded by a public in need, continued to trickle out. In 1832, an American physician, Dr. Knowlton, published a booklet called "Fruits of Philosophy" in which he recommended withdrawal and douching as contraceptive methods. This was reprinted in England in 1877 by social reformers Charles Beadlaugh and Annie Besant, who by this action deliberately courted prosecution under the Obscene Publications Act of England. They were acquitted by the High Court and their case was revolutionary: it did away with legal barriers to the dissemination of birth control information.

The legalizing of birth control information in England was to become a landmark in the acceptance of the idea of birth control. Following this, millions of pieces of contraceptive literature flooded the market and this led to a large demand for contraceptive devices. Several manufacturing firms were also founded.

Because of this new impetus to the dissemination of birth control information and because of developments in biological and physical sciences, new birth control methods were developed at the time. In 1880, the first rubber cervical cap was put on the market and two years later the vaginal diaphragm was invented by William Mensinga, a German physician, and became widely used in the European continent. In this drive, for birth control, a number of doctors, who because of their being privy to the sufferings of women who bore too many children, were active in the movement. One such doctor was Dr. Henry Allbutt who in 1887 published a book in England called "The Wife's Handbook", which contained information on most of the methods of contraception used today: withdrawal, safe period, douches, sponges, sheaths, diaphragms, contraceptive powders for insufflation, and the so-called Rendell's pessaries. For his efforts, this doctor was struck off the register by the General Medical Council, an action that was a set-back to the movement in England.

Little is it known even by Catholics themselves that the Catholic Church has played a prominent role, in its own way, in the advancement of family planning as a concept. In 1853, the Bishop of Amiah, noting that many couples confined sex relations to what was then regarded as the sterile period of the menstrual cycle, asked the Sacred Penitentiary in Rome to rule on the practice. It was however later in the year 1880 when the ruling was reaffirmed by the Sacred Penitentiary, the highest tribunal in matters of moral propriety, thus establishing the moral basis for periodic continence as a means of avoiding conception. Unfortunately, the period suspected to be the sterile period was not in fact the sterile period, a fact which helped to bring the rhythm method into disrepute because of its miscalculation and lack of effectiveness. It was only in 1931 when a breakthrough on the rhythm method was made by two doctors working independently Hermann Knaus, an Austrian, and Kyusaka Ogino, a Japanese. Their work forms the basis of the modern rhythm method of birth control--the only method so far officially sanctioned by the Catholic Church. Their findings were to be greeted with great interest by the birth control movement.

Interest in population problems and birth control was to be accelerated when in 1881 the Dutch neo-Malthusian League was formed. A neo-Malthusian League was also formed in England and was later followed by the formation of similar leagues in Belgium, France, and Germany. These leagues helped considerably in the dissemination of birth control literature which they distributed free of charge to married couples.

Motivations for the concept of family planning had oftentimes been linked with some human drama. One such significant human drama was to take place in the summer of 1912, when a young nurse was called to a tenement flat on New York's sweltering lower East Side to save the life of Sadie Sachs, a mother of three who had tried to perform an abortion on herself. The patient's husband Jake Sachs had summoned the nurse and a doctor who reached her when blood poisoning had already set in. For three weeks, the doctor and the nurse worked hard to save the woman's life. Finally, she responded and got well. The doctor in a

final check-up, warned Sadie that another abortion would surely kill her.

"I know, I know", the woman wailed. "What can I do to prevent another baby?"

Gruffly, the doctor told her, "You can't have your cake and eat it too, young woman. There's only one way. Tell Jake to sleep on the roof."

The doctor's harsh joke left Mrs. Sachs weeping--and the young nurse in anger. This nurse was Margaret Sanger, and it was this little human drama, more than any other touching incident of death, poverty and disease she had witnessed, that motivated Mrs. Sanger to take up her life's work of family planning.

In her battle for birth control, in which she defended the physician's right to give birth control advice and parents to practice it, Margaret Sanger was jailed, persecuted and barred from speaking on several occasions. She was the first one to open a birth control clinic in America in 1916 in Brooklyn.

Five years later, in 1921, another courageous woman, Marie Stopes, opened her birth control clinic, the first in England, the "Mother's Clinic" in North London. This clinic still exists, now named "The Marie Stopes Memorial Clinic".

Margaret Sanger, who also ran a magazine called "The Woman Rebel", featuring birth control information (she was the first one to use the term "birth control"), travelled far and wide not only in her country but in various parts of the world. Wherever she went, she spread the word for family planning. She went to India in the '30s, looked around at the appalling conditions, and tried to plant the seeds of the family planning concept--which was to be reinformed and actively made to bear fruit later when India gained her independence from the British.

Margaret Sanger came to Manila, too, in 1937 and was promptly discouraged by then Manila Mayor Juan Posadas,

who believed birth control was immoral and impractical in the Philippines, and thus did not give her permission to speak in forums. It is quite apparent, that after 28 years, Manila has changed a lot, as proven by the fact that Dr. Sushila Gore, a disciple of Mrs. Sanger and an official of the international organization Mrs. Sanger founded, the I. P. P. F., was not only allowed to speak at several forums but was given a press conference by the present Mayor of Manila, Mayor Villegas himself.

Before we delve further into the progress of family planning as an international movement, let us see how far family planning has permeated the economically advanced countries of Europe, North America, Japan and Oceania. It is to be pointed out--although we can only summarize here--that family planning methods have definitely been popularized in these countries. The opposition to contraception of the Protestant churches and conservative middle class persons was overcome almost half a century ago, and the opposition raised by the Nazi and Fascist parties vanished with the end of their regimes. The Catholic ban on contraceptives is truly effective only in Ireland and perhaps in Spain; and the Communist ban, applied intermittently in the Soviet Union and Mainland China, has not been a significant factor in Eastern Europe.

The widespread use of one or another of family planning in these countries may be safely said to be the major causes of the characteristically low rates of population increase that these countries have. Let us cite a few statistics on rates of population increase in various countries.

Population estimates show the annual rates of population increase 1958-1963 of the following developed countries: United Kingdom--0.7%; Belgium--0.5%; Denmark--0.7%; Finland--0.8%; France--1.0%; Sweden--0.5%; U.S. --1.7%. It is also worth noting that Japan, the only developed country in Asia, has a population rate of increase of only 0.9%. Consider further, my friends, if only by way of contrast, that during the same period, the less developed countries or poorer countries had very high rates of population increase: the Philippines rate of population increase

was 3.3%; Costa Rica--4.4%; El Salvador--3.6%; Syria--3.5%; and South Vietnam--3.5%.

Margaret Sanger was to play a key role in elevating the family planning movement onto the international level and reinforcing the campaign with organizational effort. In 1927 she organized the First World Population Conference in Geneva. She brought leading demographers, scientists, sociologists and physicians to discuss the subject of world population in the hope of that a policy would be formulated to put an end to its uncontrolled growth. No other comparable conference was held until the United Nations World Population Conference met at Rome in 1954. Other international conferences were held but perhaps the most significant international effort at this time was the establishment of the Birth Control International Information Centre in London, which was to be the forerunner of the present international headquarters in London of the I.P.P.F., the only international agency of its kind now having as members family planning organizations and governmental agencies in over 42 countries all over the world.

Margaret Sanger also travelled far and wide in Asia, flashed warning signals to Japan, China and India. The world's first governmental birth control clinics were established in 1930 by the Mysore government in India. Meanwhile, the efforts of several international groups succeeded in the formation of the International Planned Parenthood Federation in 1952 in Bombay, India. The IPPF, now in its 15th year, has divided the world into five regions, one of which is the S.E. Asia & Oceania Region in which the Philippines is.

The United Nations, as an organization, was also to help play up the consciousness for family planning, though in a limited way. Because of opposition to family planning from some Catholic countries, the United Nations has restricted itself largely to demographic and scientific studies on population. In 1952, however, the U.N. assisted India in a pilot project using the rhythm method, which failed miserable because of factors that point out that the rhythm method does seem to be very feasible as the basis of a public program in a society with low literacy.

And then, a Catholic American president was elected, raising curious speculations as to how a member of a church that poses the only organized opposition to contraceptives, would tackle the challenge of population problem. His Protestant predecessors had earlier swept the issue of government family planning aid under the carpet. This includes President Eisenhower, who took a classic hands-off stand when he said that he couldn't think of anything less appropriately a matter of government concern than the issue of family planning, which he believed should be left only to the private sector.

President Kennedy, the Catholic president, boosted family planning when in his 1961 Special Message on Foreign Aid, he said he favored the giving of foreign aid to assist birth control programs of countries that may seek it from the U.S. President Kennedy, whose assassination was to take place a year later, had paved the way for a vigorous "can do" attitude towards the world's population problem that might have encouraged his successor, President Johnson, into putting himself squarely behind a population limitation aid policy.

The consciousness for the population explosion was to gain more momentum at this time. In 1962, it was figured that while it had taken aeons and aeons of time for the world population to reach 3 billion, it would take only 35 years to add the next 3 billion if present growth rates remain unchanged. And it would take less than 35 years after that for 6 billion people to double to 12 billion, if present growth rates persist.

Economists, world planners and leaders from all sections--political, social, and religious--were getting more and more alarmed over the fact that while birth rates remain high, the death rate kept going down, thus widening the demographic gap resulting in the so-called population explosion. Because of high population growth especially in less-developed areas of the world, gains in economic development were being largely cancelled--thus resulting in the perpetuation of the same traditional culture of poverty. Even the U.N. agency--the ECAFE--was being alarmed, for instance, that developing countries in Asia would not be

because of population growth outstripping economic development in these places.

This growing alarm was to be translated into assistance, not only on purely economic development programs, but also to boost directly efforts to curb population growth. Ford Foundation, for instance, has spent $50 million for population research and studies in the U.S. and abroad; the Rockefeller Funds have spent $10 million for the same purpose. The Population Council, which gave the City of Manila health department several travel grants recently, is an off-shoot of the Rockefeller Foundation.

Other organization efforts on the population problem that should rate mention are the Population Reference Bureau, the Pathfinder Fund financed by philanthropist Clarence Gamble, the Grant Foundation, the Brush Foundation, the World Neighbors, and others that I might have missed.

This grim realization that efforts at developing underdeveloped areas of the world are ineffective in the long run because of fast population growth outstripping economic development, was perhaps best argued by Eugene Black, president of the World Bank, who told a U.N. body in 1961: "I must be blunt...Unless population growth can be restrained, we may have to abandon for this generation our hopes of economic progress in the crowded lands of Asia and the Middle East."

Meanwhile, on the technological field of family planning, new and more effective methods have been developed. Dr. John Rock, Catholic gynecologist in Harvard University, developed the ovulation-controlling pill, which is now used by about 10 million women all over the world. The intra-uterine devices, too, were developed and are now found to be very helpful and effective especially in the poorer countries. Suppositories and spermicides have also been made more convenient. Scientific research is still going on probing for new and improved methods, such as the pill designed to temporarily halt the fertility of men.

when the Vatican Ecumenical Council took it up for discussion last year. I will not delve so much in the details of the controversy which I'm sure you have read about in the newspapers and magazines, but let me just point out the most recent development, which is, that the special commission assigned by Pope Paul VI to study the issue came out with a "no decision" stand on it. This is popularly believed by many sectors as perhaps the best thing the Catholic Church can do for family planning at a time when the atmosphere is charged by a division of thinking even among the Catholic hierarchy itself on this matter.

What is the state of family planning programs in countries that have them? Let me just cite briefly a few of these programs if only to give a glimpse of these countries' accomplishments in family planning.

India, whose government was the first in the world, to open clinics, has about 1800 family planning clinics, and its Third Year Plan envisages an increase to 8,200 and a considerable extension of family planning services in hospitals and other medical and health centers. Effectively, India's family planning did not get under way until about 1956. Experts say it is still too early to judge whether its program will be successful but because resources that have been earmarked for the Third Five Year Plan were very large, there was some hope, some expectation that progress will be achieved.

Pakistan--A small government program begun in 1957 under the direction of the Central Family Planning Board, which cooperates with national voluntary family planning organizations. Pakistan's leader, social reformer President Ayub Khan, had persistently asked the U.S. and the U.N. for assistance on his birth control program. Proof how seriously Pakistan's government is taking its population problem, is the fact that for the period 1960 to 1965, it has appropriated $6.4 million for a public program of family planning services. Recently, it has gotten the support of Sweden to open model clinics in some of its big cities.

Eugenic Protection Law passed in 1948, legalized abortion and encouraged dissemination of contraceptive information. Family planning guidance is today provided at 800 public health centers, and more than 40,000 midwives and public health nurses have been trained to give instructions to parents. The program is operated under the Health and Welfare Ministry--which works in cooperation with several large voluntary family planning organizations, and involves a substantial expenditure of government funds.

Ceylon--The Government of Ceylon grants a subsidy to the Family Planning Association of Ceylon, which had by 1961 opened 46 clinics, and almost twice as many centers in hospitals and health agencies. The government also accepted an offer by the Swedish government to co-sponsor a large-scale study of attitudes toward family planning and methods of establishment of family planning services in rural areas.

South Korea--In January, 1962, the government launched an official family planning program, which calls for the establishment of 200 clinics and an educational program to familiarize parents with contraceptive techniques. The program which is under the direction of a family planning review board within the Ministry of Health and Social Affairs, encourages the production and importation of contraceptive materials.

Barbados--The government has since 1956 subsidized the activities of the local family planning association which operates clinics in government health centers, maternity hospitals and other welfare facilities. The government also received U.N. assistance in establishing criteria for evaluation of the program's effectiveness.

Puerto Rico--Since 1937, family planning services have been available there through the maternal health clinics operated by the Public Health department. In addition, an energetic program is carried on by the Family Planning Association of Puerto Rico. It must be pointed out that

Puerto Rico is a predominantly Catholic country and that the church had opposed family planning vigorously. The church made its major challenge to the program in the last Puerto Rico elections when a Catholic party was formed with the explicit objective to change the laws with respect to birth control and sterilization, but the Catholic party's candidates were overwhelmingly defeated in the elections.

Taiwan--Public health centers and hospital clinics cooperate with the F. P. Association in providing family planning services. The association is supported by government grants and international organizations like the Population Council are actively lending assistance on action programs. It is the goal of the Taiwan program to provide service for 600,000 families during the next five to 10 years.

Egypt--The government established in 1953 a National Commission for Population Questions with a budget for the creation and operation of family planning clinics. By 1959, 24 clinics had been established. Only last May, the National Board of Family Planning was created by the government of the U.A.R.--a major step forward in the government's family planning program.

In Hongkong, Singapore, Malaya, the Union of South Africa, government subsidies, though limited in scope, are provided to family planning organizations. Private effort of organizations, including women's clubs, in these places, have been making considerable progress.

Voluntary family planning groups carry on limited activities in the countries of Ghana, Kenya, Liberia, Mauritius, Nigeria, the Rhodesias, Sierra Leone, Tanganyika, Uganda, and Zanzibar. Mauritius, for instance, has a Jesuit priest, Fr. de Lestapis, who is working on a family planning program there utilizing the temperature method. Kenya has opened six clinics in different parts of the region.

In Great Britain, Norway, and Iceland, family planning services are offered through government health facilities.

Great Britain today has the most nearly adequate f. p. service in the world. The FPA voluntary organization there is even supported by its own earnings, subscriptions and donations. During 1961, they had 366 clinics in operation.

In Continental Western Europe, contraceptive services are provided by voluntary organizations, except in certain countries where it is illegal. The chief services, however, are provided by doctors in private medical practice. In the postwar perspective, Europe's death control and its birth control are viewed to be both excellent, so that by world standards its growth has been extremely low.

In the Soviet Union, Czechoslavakia, East Germany, Hungary, Poland, and Yugoslavia--contraceptives and abortions are available through publicly supported hospitals and health centers. These countries have also set up scientific committees to investigate techniques of conception control to replace abortion. In Poland, there is a voluntary family planning organization.

Mainland China--In March 1957, the government in Peking suddenly launched a full-scale, all-out nationwide birth control campaign. Educational materials flooded the country through press, posters, radio and contraceptive supplies were freely made available. In the fall of the same year, the campaign was turned off, completely, just as suddenly as it had been turned on, as a consequence of a major change in the strategy of economic and social and political development, and government set about planning the Great Leap Forward, launched in 1958, which sought to mobilize and capitalize upon the under-utilized physical energies of the Mainland China's huge population. Birth control services and supplies continue to be available through government medical facilities, but without popularization or publicity.

A recent intensification of the family planning program has been noted as the government has realized how big an impediment population growth is to economic development.

The United States--Almost all American couples sooner or later employ some form of fertility control during their marriage. The latest figures show that there are 700 government clinics and 250 Planned Parenthood centres all over the U.S. In seven states, birth control are provided through the facilities of the state health departments. In the U.S., as in Canada, services are widely provided through private medical practice.

Now you ask--after all the history of family planning has been told and its progress described--you ask: Has much been accomplished toward controlling population growth?

In that third of the world comprising Europe, the U.S.S.R., the U.S., Canada, Australia, New Zealand and Japan, birth control has long been practised, and the control of fertility has been substantially achieved.

Elsewhere in the world--demographers say--in Asia, in Africa, in Latin America, with few exceptions, no progress that is demonstrable in statistics has been achieved in reducing birth rates.

Of course, population control programs are either too new or too small to permit more than exceedingly limited operations or to allow any precise evaluation on their effectiveness. The problems of introducing family limitation in pre-industrial cultures with insufficient educational and medical resources and personnel are mountainous and complex. They will yield only to intensive, nationwide education programs and the provision of adequate services as integral parts of maternal and child health programs. It will therefore be essential to institute nationwide educational programs in the developing countries and to promote active national family planning movements in the interest of health, human dignity, and economic and social progress.

The international movement of family planning has finally reached our shores. Because we, too, in the Philippines, have the common problem of constant child-bear-

ing, which accounts for our having one of the world's highest rates of population increase, (it's now about 3.6%), we have responded to this movement. The health department of the City of Manila made a remarkable step in recognizing the need for family planning assistance as an integral part of its public health services. Hand in hand with its recognition of this need, is the desire to learn how a family planning program may be launched for the public that desires the information--and this effort at learning was shown when city health personnel headed by Dr. Coronel, your assistant health officer, went on an observation tour of family planning programs in other Asian countries. I believe that these city health officials are going to speak to you too in this seminar, thus spreading out further the knowledge they acquired.

It would also interest you to know that the private sector has also been active. Last April 4, the Family Planning Association of the Philippines, Inc. was formed. This organization, boosted by the interest and effort of private medical practitioners, social workers, civic leaders, educators and plain citizens, aims to stimulate family planning movement on the national level, as well as provide information and services to those families who seek them.

It is however important and necessary that those in the service of public health, as well as the private sector, particularly the medical and para-medical people, such as you my indulgent audience, participate in this movement. It is important that you give it your support, your enthusiasm, your dedication. For in the final analysis, it is you, public guardians of the people's welfare, that our poor families will go to for information and assistance on so real and common and compelling a problem as uncontrolled childbearing.

Don't let those Sadie Sachs down!